

SOUTHERN TEXTILE BULLETIN

VOL. VI

CHARLOTTE, N. C., NOVEMBER 20, 1913

NUMBER 12

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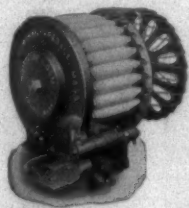
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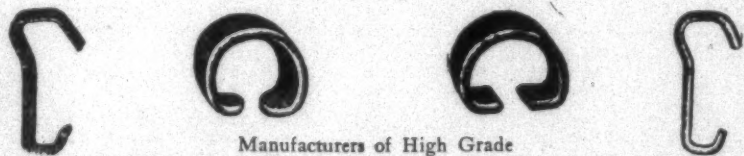
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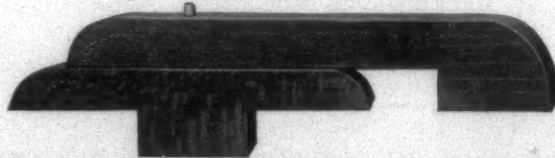
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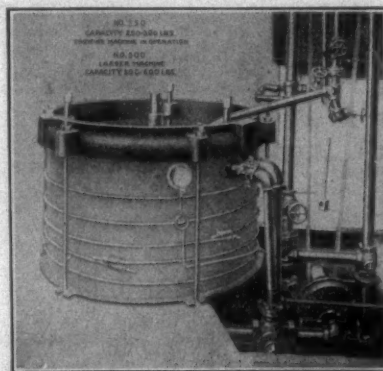
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SOUTHERN TEXTILE BULLETIN

VOL. 6

CHARLOTTE, N. C., NOVEMBER 20, 1913

NUMBER 12

Report on Hosiery and Knit Goods Industry

Final statistics of the hosiery and knit goods industry in the United States for 1909 are presented in detail in a bulletin soon to be issued by Director Harris, of the Bureau of the Census, Department of Commerce. It was prepared under the supervision of W. M. Stuart, chief statistician of manufactures. The classification, "hosiery and knit goods," covers all establishments engaged primarily in the manufacture of knit goods, irrespective of the kind of materials used.

There were in 1909, 1,374 estab-

lishments in the hosiery and knit goods industry in the United States, in which 136,130 persons were engaged, of whom 129,275 were wage earners. The amount paid in salaries and wages was \$52,431,680. The value of products was \$200,143,527; the cost of materials \$110,241,053, equal to 55.1 per cent of the value of the products; and the value added by manufacture \$89,902,474. The capital invested amounted to \$163,641,171.

New York in the Lead.

The hosiery and knit goods industry is widely distributed throughout the United States, one or more establishments being reported from 38 to 48 States. New York is the most important State, ranking first in value of products and value added by manufacture at the census of both 1909 and 1904. In the number of wage earners employed, how-

The average number of persons engaged in the industry during 1909 was 136,130, of whom 129,275, or 95 per cent, were wage earners. Of the total number of persons engaged in the industry, 43,950, or 32.3 per cent, were males, and 92,180, or 67.7 per cent females. Of the wage earners, 70.3 per cent were females. This is the highest percentage of female wage earners reported for any of the textile industries, the percentage in the silk manufacturing industry, 44.5; and in the cotton goods industry, 43.7. The largest number

dren reported as employed in the hosiery and knit goods industry has shown an increase at each succeeding census, the percentage which they have formed of the total number of wage earners has decreased. The percentage of females 16 years of age and over was approximately the same for 1899 and 1909, though that for 1904 was a little higher. Of the wage earners employed in the hosiery and knit goods industry in 1909, 92.9 per cent were in establishments where the prevailing hours of labor were from 54 to 60,



Elm City Mills, La Grange, Ga.

lishments in the hosiery business and knit goods industry in the United States, in which 136,130 persons were engaged, of whom 129,275 were wage earners. The amount paid in salaries and wages was \$52,431,680. The value of products was \$200,143,527; the cost of materials \$110,241,053, equal to 55.1 per cent of the value of the products; and the value added by manufacture \$89,902,474. The capital invested amounted to \$163,641,171.

Between 1899 and 1909 the number of wage earners increased 54.5 per cent, while the cost of materials, value of products, and value added by manufacture more than doubled. At least part of the increase shown in cost of materials and value of products, however, is doubtless attributed to increased prices.

The number of establishments reported for 1909 was more than five times as great as in 1869 and the

ever, New York ranked second in 1909, although it ranked first in 1904. In 1909 the value of products for New York represented more than one-third of the total for the industry in the United States. Pennsylvania ranked first in the number of wage earners employed in 1909 and second in value of products and value added by manufacture. Massachusetts ranked third in all three items.

Of the 10 leading States in 1909 on the basis of value of products the one showing the largest percentage of increase from 1899 to 1909 (403.6) was North Carolina. Still higher percentages of increase, however, are shown for Tennessee and Minnesota. Vermont and South Carolina are the only States which show a decrease in value of products between 1904 and 1909.

of female wage earners 16 years of age and over (28,045) was employed in Pennsylvania, and the next largest number (24,424) in New York. The largest number of wage earners under 16 years of age (14,515) was also reported from Pennsylvania, but the next largest (1,501) was in North Carolina.

The proportion of children under 16 years of age was higher in North Carolina (27.7 per cent) than in any other State employing 2,000 or more wage earners in this industry. In the other States of this class the percentages were as follows: Indiana, 19.3; Tennessee, 16.6; Georgia, 16.4; Pennsylvania, 11.2; Wisconsin, 10.6; Ohio, 7; Illinois, 6.8; New Jersey, 1.9; Massachusetts, 4.4; Connecticut, 3.1; Michigan, 2.7; New Hampshire, 1.9; and New York, 1.8. Although the actual number of chil-

inclusive, per week, and 50.6 per cent were in establishments where the prevailing hours were more than 54 but less than 60 per week.

Form of Ownership.

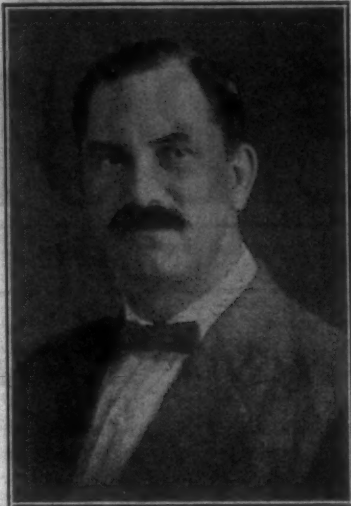
In 1909, of the total number, of establishments reported for the industry, 47.4 per cent were under corporate ownership, as compared with 41.5 per cent in 1904. There was an appreciable increase during the five year period in the relative importance, as measured by value of products, of establishments under corporate ownership, such establishments contributing 71 per cent of the total value of products in 1909, as compared with 63 per cent in 1904. Of the 1,374 hosiery and knitting mills reported for 1909, 25, or 1.8 per cent, manufactured products valued at \$1,000,000 or over. Both in 1909 and 1904 the greater

(Continued on Page 18)

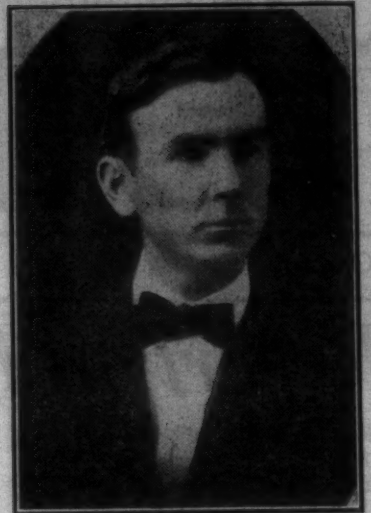
Board of Governors, Sou. Tex. Association



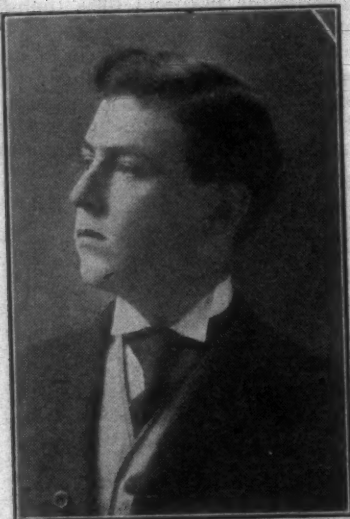
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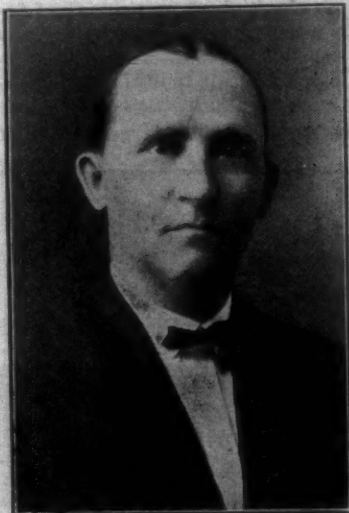
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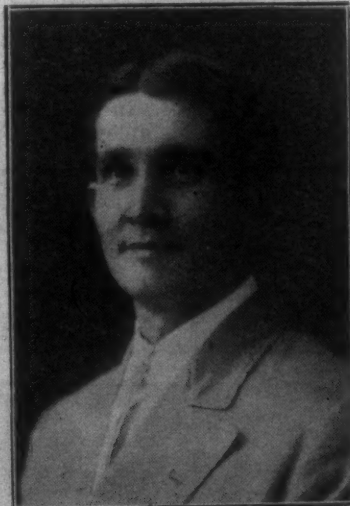
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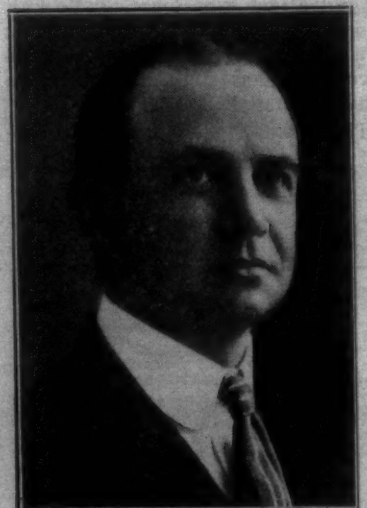
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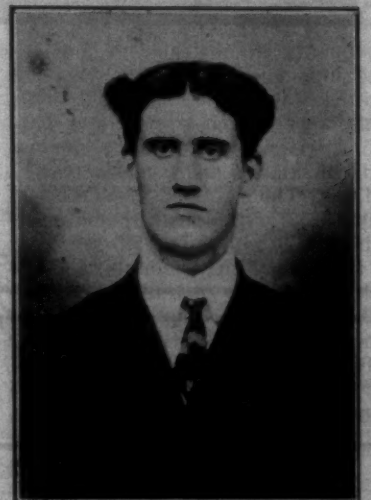
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Jas. Bangle,
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Jno. W. Clark,
Durham, N. C.



J. O. Edwards,
Pell City, Ala.

We have omitted M. O. Alexander or C. P. Thompson as we have no cuts of them.



This flash-light photograph, taken in one of the Clinchfield Mines in Southwestern Virginia, shows a gathering motor bringing loaded mine cars to the assembling room. Here trains are made up for the large tram motors which haul the coal to the tipples.

Here we have the switching yards of an extensive and expensive underground railway system from which the tracks radiate into the numerous entries and from which the main line leads to the mine opening, thence around the mountain side and down to the tipple where the coal is transferred from the mine cars into the railway cars. Adv.

New Spinning Contrivance.

At Sabadell, Spain, a remarkable attachment which may prove to be the most important improvement in spinning during recent years has been applied to a 48-spindle machine. It is reported to have demonstrated that the intermediate and roving frames of a mill can be eliminated without disadvantage. The inventor is Senor Casablanca, a Catalonian, his patents being controlled by the Sociedad Anonima Patentes Casablanca. About 400 spinners and other persons recently attended a demonstration, in which the 48-spindle machine was spinning one side 70's yarn from 1.00 hank slubbing of Egyptian cotton and on the other side 60's yarn from 1.36 hank slubbing of low American cotton. The draughts were, therefore, respectively 70 and about 40. Taking the whole machine, the differences entailed by the Casablanca arrangement are these. The back and intermediate lines of drawing rollers are absent. Instead of them two endless leather bands, similar to those used in waste or woolen carding engines, run over

guide rollers in such a way that they come into running contact with each other during part of their travel and carry the roving along between them from the creel bobbin to the front line of spinning rollers. From this point the operations proceed as usual.

It is stated that with a draught of 40 to 50 obtained in this novel way, the resultant yarn is strong. With draughts above this it is said, on the authority of one spinner, to be weaker than yarn spun in the ordinary way. It is claimed that, if the sliver is unequal, the natural tendency of the apparatus is to make it more regular, the leather bands pressing more heavily on the thicker sections. It is said, but without any qualifying reference to the draughts employed, that a general increase in strength of 5 per cent over yarn spun in the ordinary way is shown.—Boston Transcript.

Short Time in European Cotton Mills.

Sir Charles Macara, of Manchester, president of the International

Cotton Federation, received from Belgium a message stating that Belgian cotton spinners, following the example of the cotton spinners of Austria and Italy, have decided to curtail production to the extent of a day a week during November and the first half of December. Until the International Cotton Federation was formed, organized short time was unknown in the Continent cotton trade. Now it is found to be a very useful device in times of emergency. The main causes of the limitation of output are the high prices of the raw material and the scarcity of orders.

Reports from the German cotton centers state that spinners are not selling any large quantities of yarn at present. What business is being done is chiefly in mule yarns, trade in ring yarns being very dull.

The statement is also made at Manchester that the Master Cotton Spinners' Association is planning short time for English spinners (except for spinners of Egyptian or other long-stapled cotton, which trade is well employed on large contracts). Meanwhile, some English spinners and weavers are not wait-

ing for a formal decision of the federation (but are putting their mills on short time owing to the continued very high level of American cotton and the present restriction of buying for the big consuming markets.—Consular Reports.

He Wasn't So Silly.

A young Lancashire mill worker had a mental relapse, which resulted in his being sent to the county asylum.

After he had been there a few weeks he was visited by one of his fellow workers, who came across him in the grounds.

"Halloa, Benny," said the visitor, "how's tha gettin' on?"

"Oh, Ah'm goin' on first-rate, thank ye," answered the afflicted one.

"Ah'm very glad to hear it, lad," said the visitor, pleasantly. "I suppose you'll be comin' back to work soon—ah?"

"Wot!" exclaimed Ben, while a look of great surprise spread over his countenance. "Leave a big house and a grand garden like this to coom back to work! Mon, dost tha think Ah'm wrang in my head?"—Ex.

Care and Operation of Roving Frames

Forty-One Articles.

A total of forty-one articles have been contributed to the contest for the best practical article on "Care and Operation of Roving Frames."

The number of the articles and also the quality has surprised us and shows that the South is raising a generation of mill men who are close students and know how to put their thoughts into articles of this class.

We have run a number of contests and are glad to say that we have never failed to make a success of every one of them and we take special pride in this contest because it is a subject which is not familiar or well understood by many mill men.

On account of our convention number next week, we will run none of the contest articles in that issue, but after that they will be run as fast as space will permit until completed.

Number Nine.

I want to give my experience with roving frames. I find that they are usually more or less neglected. I think that they should be cleaned at least once a year. That is, to loosen up all the lift gears, pick them out clean, open all oilways, level the carriages, line the spindles, clean the bobbin gears, and take out and clean the steel rolls, have all joints tightened up, take out all leather rolls that are creased so that one roll steals from the other, causing uneven yarn. Then set the rolls according to the staple of cotton being used. Have the top rolls lean forward just enough to keep them from rocking when starting or stopping the frame. See that the top rolls have a little play between the cap bars. The top rolls should be cleaned three times a week, bottom ones cleaned once. Roller beams should be wiped every day and spindles picked as often as needed. Oil the bobbin gears three times a week. The tops of the spindles should be looked after, so the flyers will not work up and down and wear out. I have a mill in mind now where this one thing

has cost the company hundreds of dollars, to say nothing of the trouble to help and overseers.

Overseers should look closely after the tension and teach the section men to do the same, for any practical man knows what it means to run frames with the ends too tight. Oiling is another thing that should receive careful attention.

There are a thousand and one little things to be considered in the operation of roving frames. It is very important to see that roving guides are kept in line, so that the traverse can be set to go the limit on the rolls, without running some of the ends out. This means a great deal to the life of the rolls. Hard twisted ends should be avoided as much as possible. When a cone belt breaks, the frame should be doffed off and the pieces run up. If they are allowed to go there is likely to be as many hard twisted ends as there are spindles on the frames. This will mean many ruined rolls. The roving sticks are very important and there should always be plenty on hand, so as not to cause the overseer to have to put in extra twist, as this is hard on the rolls. I have seen some mills running frames with the roving sticks so blunt that they hid the set.

Pressers should be set right so as not to make any tangled work. Whenever an end comes down far enough to upwrap, it is better to break the end back or get a piece the right size, for if the end runs after being unwrapped, it will stretch the roving and make a soft bobbin, which will likely be cut off.

Cone belts should be set properly in order that they will not stretch the roving right after the frames has been doffed. This will cause bad running work and it will take the closest inspection to detect it.

If overseers will carry out the above suggestions, they should have little if any trouble.

J. A. A.

Number Ten.

In order to keep the frames in good condition, oiling should be carefully attended to and done with care by a man of good judgment.

The roller bearings and all parts revolving at about the same speed as the rolls, should be oiled once each day. The top and bottom cones, jack shafts, horse heads, slides, bobbin shafts and spindles, shafts at head end, and all bearings around the compound should be oil-

ed daily. Some of the fast moving parts around the head end and compound should be oiled twice daily. All the revolving parts that have not been mentioned should be oiled at least once a week. The oiling of the spindle steps depends on their construction and should be done at least once a month.

The spindles where they run into the bolsters, should be oiled every day, and the bobbin whorls or gears as they are called, as often. The frames should be kept clean. The top rollers should be cleaned three times a week and the bottom ones once or twice. If the rolls are allowed to get dirty and carry laps it will cause uneven roving. If the back steel roll is lapped up and the end allowed to run, there is more roving drawn in than should be, making coarse roving. The clearer should be kept clean. If this is not done, the dirty cotton on the clearers will catch in the roving and go through with it, causing dirty, lumpy and uneven yarn. The creels should be brushed down every day. The guides or roller beams should be wiped off twice every day. The carriage head end, spindles and all casing should be cleaned once a day.

About two or three times a year, all casing should be taken off the carriage and bottom rail and all waste and cotton picked off the gears and shafts, and all grease or tallow taken out of the bearing and a fresh supply put in. It is important to take out rolls and recover them, clean the stands out and put a little grease on the bearings of the rollers when they are put back. It should be seen that too much grease is not put on, as too much will spread and get out where the roving is running causing it to lap up. The spindles should be taken out once a year and the bolsters mopped out and cleaned. When this is done, it is well to see if the frame is level and in line, and if it is not, it should be corrected. The head of the flyers should be kept clean, also the slot in the top of the spindles, so that the pin will fit in the slot.

Flyers should be kept in good order. I have seen flyers hammered on the head to make them fit, but this should not be allowed as it makes them rough and strains the roving. It is very important that flyers be smooth inside and out at all points where cotton passes. A point to be looked after on fly frames is not to have the ends too

tight between the rolls and flyers, thus stretching the ends, making thin places, or causing cut yarn or roving in the next process.

The duties of the operator are to replace bobbins on the creels when the roving runs off, to piece up broken ends, to doff the frames when the bobbins are filled and to keep the frames clean. Doffing is the operation of taking off full bobbins and putting on empty ones. Everything should be prepared beforehand. An empty box to put the roving in and a box of empty bobbins to replace the full ones will lessen the time the frames are kept stopped. When it is possible, lay the empty bobbins between the spindles on the carriage of the frame before it is stopped, so as to take the place of the full ones. Every minute the frame is stopped is a dead loss of production. When the presser on the flyer is stiff and does not submit to the force generated by its own motion, it causes soft bobbins to be made and a weak roving to be produced, which will often break when unwinding at the next creel. Such bobbins should be reported at once to the section man or whoever is responsible. Sometimes the tender has a bobbin too small by not piecing it up soon enough after it broke down. To remedy this, sometimes operators will put cotton under the weight hook on the roll to cause extra friction on the roll and reduce its speed. This causes from two to four ends to be heavier than the others, causing undue variation in the number of the yarn.

In starting up a frame after doffing, care should be taken to see that the rack is turned back, thus setting the cone belt at its proper place on the cones and to see that the lower cone have been lowered into proper position. Sometimes the clutch gear between the twin gears gets loose or has been set wrong. In such cases no traverse is given the carriage. This will cause the roving to pile up and make a ridge around the bobbins.

Running over and under is a serious defect. The precautions to be taken against this are to see that all gears from builder to carriage are in their places and firm upon their individual studs, and shafts. Then see that the spring at the bottom of the tumbling shaft is exerting its proper tension, that the clutch gear situated between the twin gears is tight and properly adjusted and that the twin gears are

W. H. BIGELOW

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adjusted and tight upon their shafts. Theoretically, every time the frames are speeded up, the production ought to increase, but in practice, they are not found to do so, because there is a limit to the speed of every machine beyond which it is not advisable to go, as excessive speed will cause defects to develop in the machinery. Unnecessary wear and tear will take place, causing so many ends to break down that the excessive time that the frames have to remain standing for piecing counterbalances the theoretical increase in production.

Bobbins in the creel should neither be too soft, so as to break, nor too hard, so as to come through hard or in lumps. If they are soft and break, there may not be enough twist in them or, the roving skewers may be blunt and cause too much friction. If they are too hard and come through in lumps it may be that there is too much twist or the tender making such roving may twist the ends in putting them up and cause the roving to come through hard in places.

Sometimes the wrong tension gear is put on, making the frame or ends run too tight or too slack, depending on whether the gear is too large or too small. The roving will be stretched when it is too tight, and when it is too slack the tender will wind up the tension a tooth, not only taking up the slack, but for a time making them run too tight, making irregular and bad work in all after process. If the gears on one frame are changed on a certain hank or grade of work, the whole of the frames on this class of work should also be changed, and not, as is sometimes done, one that is not right changed, and the gears on the other frames left unchanged.

In changing gears, it may be said that no gears should be changed without the consent of the overseer and that all changes after being made, should be report to him.

T. J. H.

Number Eleven.

Draft.—In starting roving frames one of the first points to consider is the draft of the different frames. As a general rule the draft in the intermediate frames is less than the drafts in the roving frames and greater than that in the slubber. It is not always so you can arrange a series of frames so as to give the best drafts, as one process must keep up with the other and the drafts must be changed until the production of one balances the other. Speaking generally in mills making around No. 30s a good draft on slubbers is 4, intermediates 5 to 5.25, and roving frames 6 to 6.25. An important point is the production that different drafts will give. In changing to finer roving it means reduced production not only on account of reduced weight of roving, but the speed of the front roll must be reduced in order to put in the extra twist that is required for finer hank roving. Speeding up is some times tried, but this is not often advisable, as too great speed makes the work run very badly and reduces production.

Twist.—After we have obtained the proper drafts for the different frames, another important point to be considered is the twist that the roving should have. When it is desired to put more twist in roving the speed of the front roll is reduced. This decreases the production

of the frame so we should not insert any more twist in roving then is absolutely necessary to allow it to draw off well without stretching or breaking at the next process.

Although the twist to be inserted in roving varies according to the hank roving being made, and the stock of cotton being used; a good way for determining whether or not the twist being placed in the roving is sufficient is to feel each bobbin of roving to see that it is not too soft or too hard.

Lay.—The coils on the first layer should be laid so the bobbin can barely be seen between the layers. This is required in order to obtain a well built bobbin. At this point the length of the traverse should be as great as possible without the flyer pressers striking the ends of the bobbins.

Different mill men have different ideas as to the correct lay gear to be used, but it is generally assumed that it is a matter of experiment and experience. The most suitable number of coils per inch varies from 7 to 14 times the square root of hank roving being made. The smaller multiplier to be used for the slubber and intermediates and the larger for the roving frames.

Tension.—In starting up new frames the tension should be looked after very carefully. We should see that the bottom cone gear is the correct size to allow the belt to start at the little end of the cone when winding the first layer on the bobbin. After the correct cone gear has been obtained it should not be changed any more unless the diameter of the empty bobbin is changed. It is very important to have the tension adjusted properly at all times, otherwise the roving will be weak and uneven.

At this point I will say that it is impossible to obtain the correct tension on the roving all the way through unless the lay gear is the correct size. If the lay gear is too large for the hank roving being made the tension will be too great before the bobbin fills up, and if the lay gear is too small for the hank roving being made it will be too slack. Either one of these troubles will cause a lot of bad work and uneven roving. A good many carders think the cones are not right and they fail to get the tension right because they have not got the correct lay gear on the frame for the hank roving being made.

Creeling.—The frame properly geared and adjusted, it is then ready to be started up. The next process is creeling. It is very important to have the roving creeled in so that one line will run out at the time. Other points to be noted in creeling is to not make long splices and bobbins should not be creeled in that will touch the next bobbin as this will prevent the easy unwinding of the roving and cause uneven yarn in the final output. Having all the ends pieced up at the front of the frame it is then ready to be started.

During the time the first doff is being made, all the different parts of the frame should be watched very closely. Special notice should be taken to the build of the bobbin and the tension on the roving. As a rule the taper should not be too great since it will prevent winding a sufficient amount of roving on the bobbin and cause too frequent creeling at the next process. If the taper is not great enough it is liable to cause the ends to run over and under during the wind-

ing and cause unnecessary breaking of ends. Every means should be adopted to prevent this trouble. Some of the precautions that should be taken are: that all gears from the builder to the carriage must be properly set, the builder screw must be perfectly straight, if crooked it will prevent the builder from closing at times at it should and cause the ends to run over and under. The spring at the bottom end of the tumbler shaft must have sufficient tension to pull the tumbler shaft around so the teeth of the gear on its upper end will come in contact with the top cone gear. If it has not enough tension it will cause running under and over the roving. The twin gears must be properly adjusted to the clutch gear which is situated between them. Running over and under is frequently caused by the carriage not being level its entire length. At times this is also caused by imperfect flyers, the pins breaking in the boss of the flyer, etc. It is very important that the flyer should be smooth at all points where the roving passes. Hammering down the flyers should be avoided as this will make them rough at the top.

When the small bevel gear that drives the bobbin is worn or not properly set the bobbin will jump and stretch the roving. If a coupling gets loose on the bobbin shaft and lets a section of the shaft slide slightly in its bearings, or if the bobbin shaft is rocked the bobbin will jump. The same is also true if the spindle jumps instead of the bobbin. The cone belt should be watched very closely, it should be the proper length to allow the bottom cone to run about level. The steel rollers should be taken out and cleaned twice a year, top rolls should be kept clean and in good shape at all times. The top and bottom carriages should also be cleaned twice a year, the spindles taken out and bolsters mopped out. If this is neglected the frame will get full of chocks and run heavy and badly. It will also decrease production.

Oiling should be well looked after at all times as well as the fixing. When a frame breaks down and new gears and other parts are needed they should be lined and put up perfectly true. At this point will say we should not use new gears with badly worn gears. A lot of break-down are caused by using of break-belt dressing as this will belt dressing as this will start the frame up too fast and cause the teeth in fast running gears to break.

Oiler.

Number Twelve.

The carder should first see that all of the frames are in perfect line and leveled, and all gears are properly set, and not jammed up. They should be set to two-thirds the depth of the teeth. Secondly, he should see that flyers are properly balanced and that the steel rolls are perfectly straight. All leather rolls should be examined once a month by the second hand and all new ones measured with the calipers before they are put in. Drafts should be regulated between each process to avoid lumping and cut roving. All roving frames should be thoroughly cleaned as often as every six months by taking off the casing and cleaning the spindle shafts and bobbin shafts and by taking out the steel rolls. Spindle steps should be oiled every two

weeks, and a good grease kept in the bolster bearings and steel roll bearings. Spindles should never be allowed to run hot as this melts the shallac on the bobbins and is also liable to cause fires. Each spindle should be given as much attention separately as is given to the whole frame. Tension gears should be given the attention of the second hand, or overseer and should be changed to meet the weather conditions. Shell rolls should be taken out on Saturdays and the arbors wiped thoroughly to be oiled Monday morning.

I next want to take up the roving guided. These guides should be watched constantly and not allowed to stop running and should be set to carry the roving as close to the end of the rollers as possible without having any run out at the sides. This will prolong the life of the leather rolls and also make more even running work. The carder should look well to his creels and see that the skewers are in good condition, if he would avoid a lot of stretched roving. The speeder tender should be instructed how to keep the creels clean and cotton picked off of the ends of the skewers, and should be held responsible for any bad work resulting from failure to do so. Fanning off should never be allowed. Instead the speeders should be wiped and the cotton picked off by hand. This will keep lint from setting in the creels and back roving and running through in lumps, when starting the frame after doffing.

All well organized mills should have a system of cleaning speeders and see that it is carried out. Leather rolls should be brushed at least once a day and kept oiled. Spindles should be cleaned and all cotton and lint raked out from behind the frames every day. The operatives should be allowed fifteen minutes each day for cleaning the gearing at the compound and head end, as this will keep oil holes from getting stopped and insure better oiling. Section men should be required to see that racks are clean to avoid run overs and bad work resulting, and should examine the cones often to see that all screws are tight. If one winding the rack as far back on the driving cone as is required the ends run slack on the bobbin after the frame is first doffed, he should put on a larger cone gear. All balance weights should be kept on and not allowed to run down to the floor.

I do not know of any fixed rules for setting rolls on fly frames. The distance should be governed by the length of staple, the feel of the fibre and the bulk of the material being handled, the draft and the speed of the rolls. Good average drafts for different fly frames are slubbers 4, intermediates 5, fly frames 6, and jack frames 7.

Sometimes the carder will have the frames adjusted to the best of his knowledge and find the slubbers making thick and thin places in the roving without any apparent cause. When this is the case, he should go into the picker room and cue laps down an ounce or two to the yard even if he has to draft the slubbers heavier and nine cases out of ten he will find his trouble will disappear.

W. W.

Number Thirteen.

Past experience has taught me that in order to properly handle fly frames, the cotton must be properly

mixed, and cleaned at pickers. It must be correctly carded, and the drawing frame rolls set correctly. Then the fly frames are but little trouble. There, as in drawing, the speeders, intermediates and slubbers must have the rolls properly set.

Some one will probably want to know how the rolls should be set. This depends entirely on the size of stock, or in other words, the weight of the drawing and roving being worked, and the length of the staple. Then in order to know how to set the rolls on the fly frames, one must have practical experience and good common sense. The fly frames have four distinct trains of gears and all must work together in perfect harmony in order to produce good work. The roll train of gears is a constant drive from twist gear on end of main shaft to top cone shaft roller. Both places have intermediate gears.

We next consider the spindle drive which is also the constant drive direct from the main shaft through the intermediate gears to the spindle shaft. There is no excuse for anyone having serious trouble with either of these drives. Then consider the carriage drive which is connected with both the builder and bobbin drive, that is in one sense, yet it is a direct drive from the cones. Some builders make a different builder and also a different compound from others. It is a little hard to describe, yet all the different makes get the same results in the carriage drive. This drive continues to decrease as the bobbin get larger. The reason for this is that the cone belt on each change is moved a bit nearer the little end of the top cone which continually decreases in speed to lay the roving the same distance on the small bobbin and the large one. The bobbin drive is driven in somewhat the same manner, yet this drive comes from the cones, in a way, that is, the compound is regulated through or by cones, yet it gets part of its power from the main shaft. There are three or four different kinds of compounds on the different makes, yet all of them accomplish the same end. That is they run the bobbins when first started at a faster speed or at a speed sufficient to take care of the roving delivered by the rolls. As each layer of roving is put on, the bobbin builder changes, causing the carriage to start in the opposite direction and at the same time moving the cone rack as stated above, which gradually decreases the speed of both the bobbin and carriage. This is a very complicated drive, yet a simple one if we consider its work. If something gets wrong with it, start at one end of the drive and go through the entire line. If this is done, we can locate the trouble at once, and of course experience teaches us, and is the only perfect teacher. If a frame of ends seems to run backwards on the bobbins and ends all come down, we know at once that something is wrong with the compound or horse head at the connection of the compound. If the ends kink or ball up on top the flyer, we know that the cone belt is broken, cone loose or cone gear loose. If the flyers stop, a blind man would know that a gear was broken, a coupling loose or a gear slipping. If the carriage stops we know at once that a gear connected with the twin gears has slipped, worn out or sometimes the builder slips when not in

proper shape to make the change complete. This leaves the twin gears, we will say, only half in gear and the carriage will run part of the way and stop. Every man who knows anything about fly frames understands knock-off motions or cone racks, and how they are worked, and so it is useless to say more about them.

The work of the builder is to change, causing the carriage to lay the roving on the bobbins until the proper distance has been reached then change or cause it to go the other way, moving the cone rack at the same time. This moves the belt closer to the big end of the bottom cone as stated above.

We will now consider a new slubber. The first thing is to get the draft, twist, gear, lay and tension constants, see what gears we want and put them on. Of course we must first know what hank roving we want and the weight of drawing to be used. Then set the rolls to suit the stock. The coarser the drawing the wider the rolls must be opened the finer the drawing the closer must the rolls be set. This applies to speeders, intermediates and jack frames, in fact to all fly frames.

Now a few words about keeping frames in good shape. Fly frames should be kept oiled, cleaned and in good shape by the section men, that is the tension kept right, rolls properly set, frames kept in good repair. When a gear or any piece wears out it is not wise to try to run with it if it is liable to break and cause other gears to break and make bad work. The hands should be watched. See that they properly piece ends in creeling, that they let no singlings nor doublings pass, or that no hard ends are made. Watchfulness is an essential in section men. Second hands and overseers around fly frames, as at all other parts of the mill. Keeping the tension and rolls right has a great deal to do with fly frames. I have often had to open or close the rolls when the new drop of cotton came in. Even cotton that is raised on the same land is often shorter or longer one year than it was the year before.

Hayseed.

Rosin Soaps.

Rosin Soap, for use in bleacheries and print works. Rosin Size in starching fabric, are two articles highly recommended by their makers, The Arabol Mfg. Co., 100 William St., New York City. They are perfectly uniform, free from impurities and thoroughly filtered. Whoever uses them is pleased by their effectiveness and economy.

Year Book For Colorist and Dyers.

The Farbwerke-Hochst Company of New York recently sent us a copy of the Year Book for Colorists and Dyers which is the fifteenth volume of the series which has been prepared each year by Herman A. Metz.

It is a very complete volume covering the new colors and processes evolved during 1912 and will be found of much interest to those interested in dyestuffs.

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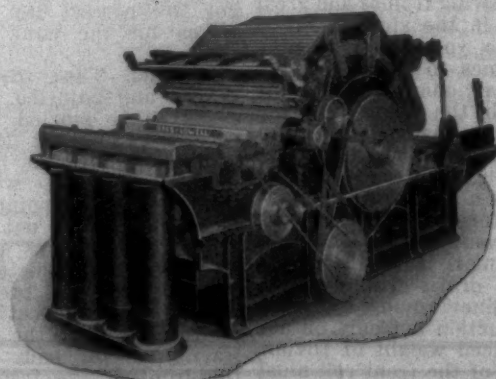
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Methods of Cleaning Fires

(Continued from last week)

(Courtesy of Clinchfield Fuel Co.)

CHAPTER V.

Banked Fire Method.

The following is a description of a good method of cleaning banked fires.

This method is particularly well adapted to plants which are operated only in the day time, all the fires being banked through the night.

Usually about two hours before steam pressure is wanted in the morning the furnaces are cleaned and new fires are started with the burning coal left from the banking.

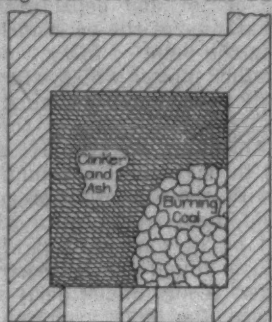


FIG. AA

Figures AA to FF illustrate the successive steps of this method.

When the day's run is nearly over, the fireman should stop firing on the entire grate area and pile several shovelfuls of coal on the front part of the grate in one of the firing doors.

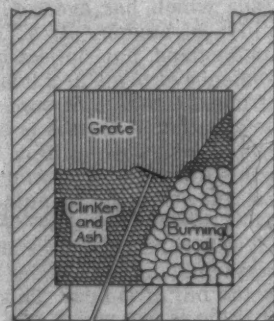


FIG. BB

This freshly fired coal forms a bank which keeps fire through the night.

The coal on the remaining portion of the grate burns out entirely by the time the day's run is completed, or soon thereafter.

The ash and clinker left on the grate then gradually cool down, the heat from it keeping the boiler warm.

Towards morning the clinker and other refuse is cold and can usually be pulled out of the furnace without the use of a slice-bar.

Figure AA shows the grate early in the morning before cleaning the furnace.

Only the portion marked "burning coal" is hot.

The portion marked, "clinker and

ash" is cool and contains no combustible.

If the clinker adheres to the grate or to the walls it can be loosened by running a slice-bar under it.

Figure BB shows how the clinker and ash are pulled out of the furnace with a hoe.

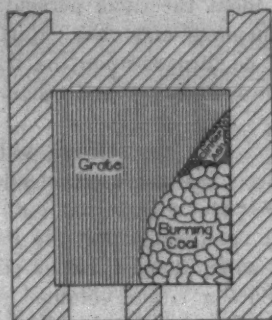


FIG. CC

The fireman need not gather all the ash and clinker on the front part of the grate before pulling them onto the floor or into a wheelbarrow, because the refuse is cold.

Figure CC shows the grate when all the clinker and ash is removed excepting that under the banked fire.

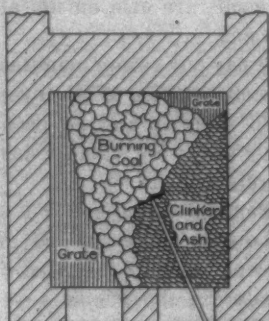


FIG. DD

Fig. DD.—The heap of burning coal is then pushed onto the cleaned portion of the grate, thus exposing the clinker and ash which remained under the banking coal.

Figure EE shows how the clinker and ash which were left under the banked fire are pulled out of the furnace with the hoe.

Fig. FF.—When all the refuse has been removed from the grate the burning coal left from banking the fire is spread evenly over the entire grate area with the hoe.

The hoe is shown in two positions, illustrating how the burning coal is spread from the central portion to each side of the grate by handling the hoe through first one door and then the other.

The motion of the tool is shown by the arrows.

After the burning coal is spread over the entire grate area, a fresh charge of coal of six to ten shovelfuls is then put into the furnace and the fire is ready for the day's run.

Before starting to clean the fires, the fireman should be sure that he has enough burning coal in the furnace to cover the entire grate area with a layer about 2 to 3 inches thick.

Under no circumstances should fresh coal be shoveled onto bare grate bars.

CHAPTER VI.

A Bad Method of Cleaning.

There is still another method of cleaning which is sometimes used by careless firemen.

This method is mentioned here only to discourage its use.

It consists in loosening the clinker with a slice-bar, lifting it to the

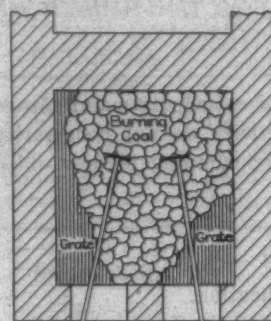


FIG. FF

surface of the fuel-bed and pulling the large pieces out with a hoe or a hook.

By such incomplete cleaning only temporary relief is obtained, inasmuch as the small pieces of clinker are left in the fire and soon fuse together, making a sheet of molten refuse, which completely shuts off the flow of air through the grate.

Often this molten refuse can be seen dripping down into the ashpit in beads.

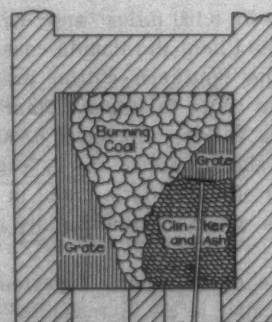


FIG. EE

More work with the slice-bar and hook must be done to prevent a failure of steam; thus the partial removal of the clinker is a more or less continuous process through the whole day.

Usually the grate gets into such bad condition and the fireman so wears himself out that a failure of

steam will occur in the latter part of the day in spite of the fireman's hard work.

CHAPTER VII.

Suggestions on Firing Clinchfield Coal.

(Reprinted from Bulletin No. 1.)

When using Clinchfield coal as fuel for power-plant boilers, the best results are obtained when the fires are kept rather thin, and the coal is fired in small charges at frequent intervals.

The thickness of fuel-beds in stationary plants having only moderate drafts, should be kept between 5 and 8 inches. If a thicker fire is carried the flow of air through the grate and the fuel-bed may be reduced to such extent that the layer of ash next to the grate is heated to its melting point and may form troublesome clinker.

Individual firings should consist of three or four shovelfuls to each fire door every four to eight minutes; the draft should always be adjusted by the damper in the uptake, for any desired capacity, so that the coal of the previous charges may be burned down before the next charge is put in. Firings heavier than four shovelfuls will result in alternate losses of fuel, due to excess of air and incomplete combustion; heavy firings will also reduce the capacity (rate of steam production) and induce fuel-bed conditions favorable to clinking.

When firings are made, the fresh fuel should be placed on the thin places in the fuel-bed and thus prevent the formation of holes in the fires. The fuel seldom or never burns evenly over the entire grate surface; at a few places it burns faster than on the rest of the grate and if the fresh fuel is evenly spread over the entire grate, holes will soon form in the pieces where the fuel burns faster, while on the rest of the grate the coal will accumulate into small heaps.

A slice-bar should never be used to stir the fuel-bed or to level it, because by the use of such fire tools the ash is mixed into the hot fuel, where it fuses into troublesome clinker.

If the fires need breaking or leveling, a two-pronged rake can be applied to the top of the fuel-bed. This rake can be made very light and firm by making the handle of one-inch pipe.

A fireman skilled with his shovel can so place his coal onto the thin spots of the fuel-bed that he can keep his fires level with very little use of the rake.

To avoid clinkers, keep the ashes on the grate cool. This can be done by introducing most of the air necessary for the combustion of the coal through the grate. As this cool air flows through the grate it absorbs heat from the layer of ash next to the grate and prevents the

(Continued on Page 6)

SOUTHERN TEXTILE BULLETIN

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THURSDAY, NOVEMBER 20

Southern Textile Association.

The Southern Textile Association holds its semi-annual meeting this week at Atlanta, Ga., and every superintendent, overseer and master mechanic, who can possibly do so, should arrange to be present. Aside from the program and the discussions which are always of interest, there are other benefits to be obtained from attending such meetings and rubbing elbows with the practical men of the industry.

A superintendent or overseer is usually confined closely to his duties and has little opportunity for meeting other men engaged in similar work and the natural tendency is for him to get in a mental rut. At a gathering such as will be found at the Ansley Hotel in Atlanta next Friday night, men naturally begin to talk with each other about the problems that they meet in their daily work and the man who can not get a few new ideas which will benefit him, ought to quit the mill business and take up ploughing for his vocation.

The Southern Textile Association is composed of live, practical men and every ambitious superintendent, overseer or master mechanic should be a member.

The Panama Canal.

The Panama Canal, the dream of generations, is about completed and soon we will have an opportunity of knowing what effect it will have upon our foreign trade.

The canal will shorten the water route from New York to San Francisco by 8,100 miles and will undoubtedly help the Pacific coast trade of the Southern cotton mills.

The route to Hawaii, Manila and China will be shortened 5,800 miles and should assist us in regaining some of our Asiatic trade in cotton goods which is now rapidly declining.

The chief benefit expected from the canal is an increase of trade with the rich countries on the west coast of South America to which the canal will shorten the distance from Charleston, Savannah, Norfolk and New York by over 5,000 miles.

Accurate statistics relative to the trade of the Pacific ports of South America can not be obtained but reliable authorities estimate that imports into those ports in 1912 amounted to more than \$2,000,000,000.

It is also stated on good authority that the consuming power of the

countries on the west coast of South America doubled during the past decade and is steadily increasing.

The canal will greatly facilitate the export of those countries to the United States and we expect to send a much larger volume of goods in return.

While the United States has materially increased its South American trade in late years it has only held about the same percentage of the business and has apparently made no inroads upon the trade of England, Germany and other countries.

Our cotton goods trade with these countries has increased considerably but we are not getting our share and it is expected that the Panama canal will put us in better position to secure a larger volume.

The Department of Commerce, Washington, D. C., is prepared to furnish reports of Commercial agents upon the cotton goods trade of any or all the countries of South America. These reports give the volume of the trade and detail information relative to the class of goods used and the average prices paid. Samples of South American cotton goods are also on file at the department.

It will pay our cotton manufacturers to secure copies of these reports and also samples and be prepared to supply goods for which a demand will surely come.

The Panama canal is 41 1-2 miles from shore to shore or 50 miles from deep water in the Atlantic to deep water in the Pacific.

It has a minimum depth of 41 feet and it will require 10 hours for a ship to pass through.

The total cost to the United States will be when completed \$375,000,000. and from a business standpoint we expect an increase of trade to justify such an expenditure.

Why Buyers Will Keep Business at Home.

"For the first time in the experience of the present generation of general buyers of iron and steel attention is being directed to the possibility of purchasing abroad at prices equal to or below those named by American manufacturers. The reductions in duty in the new tariff are so great that inquiries are being made into foreign prices for the purpose of determining whether or not more favorable purchases can be made abroad.

"A consideration of conditions governing trade carries with it the belief that after all, the sober judgment of buyers will cause them to go slowly in the attempted diversion of their orders from home manufacturers to foreign sources of supply. In the first place, the inducement to purchase abroad will have to be

substantial, or a buyer will hesitate to make trade connections with foreign manufacturers. If the material which has heretofore been obtained from the home manufacturers has been satisfactory in quality, finish, size, and method of delivery, the buyer will expect to secure from a foreign maker equally satisfactory treatment, except perhaps in the matter of delivery. If he has no immediate use for the article purchased, but desires it for future wants, he will be able to await the convenience of the foreign makers, but otherwise the length of time which must elapse until an order can be filled would strongly militate against such a purchase. A small saving in price would not compensate for delay in receiving shipments or for any departure from the character of the product he has been in the habit of using.

"Another matter which will weigh strongly in the balance against making purchases abroad is the fact that American buyers are accustomed to having quick communication with their sources of supply. If a shipment is not quite what it should be in some respect, if any trouble is found with regard to weights, if any undue delay is experienced, the buyer communicates with the seller by over-night mail, by inexpensive telegram or by long-distance telephone, and the matter is quickly adjusted. This is one of the strong reasons why American manufacturers have been able to build up such an excellent trade in Canada, despite the fact that British goods have a preference in the Canadian tariff. The nearness of the Canadian buyer to the American manufacturer has been a factor in this trade which has overcome the possibility of buying at a lower price in England, but subject to the inconvenience of being at a long distance from the source of supply.

"This question of credits is something which will have quite a bearing on this question. The American buyer is known to the manufacturer, and if he desires time is able to get it, but if he purchases abroad his payments must be in cash against the bill of lading. This feature of trade is one which will prevent many American buyers from placing orders abroad."—Iron Age.

Textile Rates Are Changed.

Washington.—Cotton and woolen freight rates on commodities used in mills in Georgia and Alabama will take notice of certain changes in these textile industries coming from the east. The interstate commerce commission has approved a new schedule of rates on chemicals, acids, dyestuffs and bleaching materials from the east, except acids, alum and salts rated sixth class or lower. A rate of 49 cents per 100 pounds from Boston, New York and Philadelphia and of 46 cents per 100 pounds from Baltimore is established to Birmingham, Eufaula, Sylacauga, Barnesville and Grantville, without regard to the long and short haul clause. The new rates are to be effective for six months, but are subject to complaint and correction.

PERSONAL NEWS

G. H. Cobb, is now outside overseer at the Williamston (S. C.) Mills.

A. D. Johnson of Kinston, N. C., has become overseer of spinning at Henderson (N. C.) Mill No. 1.

W. P. Moneyham, of Kinston, N. C., has become overseer of spinning at the Henderson (N. C.) Mill No. 1.

W. J. Hamilton is now second hand in carding at the Highland Park Mill No. 1, Charlotte, N. C.

Homer Riddle, of Clinton, S. C., has come second hand in spinning at the Lydia Mill, of that place.

J. E. Dean of Catachee, S. C., is now second hand at the Oconee Mills, Westminster, S. C.

E. D. McGraw of Iva, S. C., has accepted a position with the Belton (S. C.) Mill.

Robt. F. Grier of Fort Mill, S. C., has accepted a position with a mill at Fall River, Mass.

P. M. Bates of Anderson, S. C., has accepted a position at the Chiquola Mills, Honea Path, S. C.

Marshall Sanders is now grinding cards at the Courtenay Mfg. Co., Newry, S. C.

H. C. Wisher of Fort Mill, S. C., has accepted a position at Pineville, N. C.

W. M. Nabors has been promoted to overseer of carding at one of the Dan River Mills, Schoolfield, Va.

A. P. Hagan, has been promoted from second hand to overseer of weaving at the Canton (Ga.) Mills.

George Groce, of Shelby, N. C., has accepted a position in the weave room of the Loray Mills, Gastonia, N. C.

H. A. Jordan of Nashville, Tenn., has accepted a position with the Profile Cotton Mills, Jacksonville, Ala.

D. A. Graham, formerly superintendent of the Springfield Mills, Laurel Hill, S. C., has moved to Clio, S. C.

Frank Walker of Rockingham, N. C., has accepted a position with the Hartsville (S. C.) Cotton Mill.

R. S. Kershaw has been promoted to master mechanic of the Alabama City Cotton Mills, succeeding H. J. Burnap who was promoted to superintendent.

R. B. Marcengill has resigned as card grinder at Newry, S. C., to accept a similar position at Westminster, S. C.

R. S. McCall has resigned as outside overseer at the Williamston (S. C.) Mills, to accept a similar position at the Piedmont (S. C.) Mfg. Co.

E. R. Harrington, of Dillon, S. C., has accepted the position of master mechanic at the Harriet Mill No. 1, Henderson, N. C.

D. C. Williams has resigned as general superintendent of the Marlboro Mills, McColl, S. C., to take effect December first.

M. L. Taylor has resigned as overseer carding at the Fountain Mills, Tarboro, N. C., and accepted a similar position with the Caswell Mills, Kinston, S. C.

T. M. McNeil has resigned as overseer carding at the Apalache Mills, Arlington, S. C., to become superintendent of the Otteray Mills, Union, S. C.

R. L. Doby has resigned as overseer spinning at the Brander Mill, Concord, N. C., to accept a similar position at Newton, N. C.

W. P. Hall has resigned as second hand in lapper room in the Dwight Mfg. Co., Alabama City, Ala., and accepted a similar position at the Erwin Mills, W. Durham, N. C.

B. F. McClure, formerly superintendent of the Seneca (S. C.) Mills, has accepted the position of overseer of spinning at the Chadwick Hoskins Mill No. 3, Charlotte, N. C.

W. O. Carter, formerly of Schoolfield, Va., paid us a visit this week. Lester Lytton has accepted a position with the Flint Mill, Gastonia, N. C.

W. L. Wicker has resigned as overseer of beaming and slashing at the Patterson Mills, Roanoke Rapids, N. C., to accept a similar position at the Aurora Mills, Burlington, N. C.

J. C. Montjoy has resigned as superintendent of the Otteray Mills, Union, S. C., to accept a similar position at the Apalache Mills, Arlington, S. C.

U. A. Neese has resigned as carder and spinner at the Holt-Granite Mills No. 1 and 2, Haw River, N. C., to accept a similar position at the King Cotton Mill, Burlington, N. C.

CARDS,
DRAWING,

COTTON
MILL MACHINERY

SPINNING
FRAMES,

MASON MACHINE WORKS

TAUNTON, MASS.

EDWIN HOWARD, Southern Agent

Greenville, S. C.

COMBERS,
LAP MACHINES.

MULES,
LOOMS.

Tucapau Mills.

Tucapau, S. C.

E. A. Hill.....Supt.
A. G. Jordan.....Carder
J. F. Blanton.....Spinner
W. T. Boiter.....Weaver
Geo. Hill.....Master Mechanic

Pelham Manufacturing Co.

Pelham, Ga.

Z. M. Floyd.....Superintendent
O. F. Veal.....Carder
Jess Coker.....Spinner
P. S. McCune.....Weaver
W. R. Goodwin.....Cloth Room
C. A. Keown.....Master Mechanic

Profile Mills.

Jacksonville, Ala.

M. C. Carnes.....Carder
C. M. Bowden.....Spinner
H. A. Holbrook.....Finisher
J. L. Knight.....Electrician
Geo. A. Floyd.....C. E. and M. M.

Easley Cotton Mills.

Easley, S. C.

N. E. Smith.....Supt.
L. L. Lackey.....Carder
O. M. Page.....Weaver
J. A. Norris.....Spinner
C. H. Storey.....Cloth Room
W. M. Anderson.....Master Mechanic

Strickland Cotton Mills.

Valdosta, Ga.

W. E. Malloy.....Supt.
J. T. Brooks.....Carder
G. E. Malloy.....Spinner
J. L. Stephenson.....Weaver
J. S. Johnson.....Cloth Room
B. Burnett.....Master Mechanic

Paramount Knitting Co. No. 2.

Kankakee, Ill.

F. G. Morrell.....Supt.
M. G. Morrell.....Asst. Supt.
R. S. Mitcham.....Carder
J. W. Howard.....Spinner
L. R. Morrell.....Winder

Cherokee Falls Mfg. Co.

Cherokee Falls, S. C.

T. L. Neal.....Supt.
Ed Hampton.....Carder
R. C. Cobb.....Spinner
E. B. Pigford.....Weaver
J. R. Cobb.....Cloth Room
E. P. McWhirter.....Master Mechanic

Pacolet Mill No. 3,

Trough, S. C.

J. S. Thomas.....Superintendent
G. V. Frye.....Carder
M. L. Green.....Spinner
W. H. Holmes.....Weaver
J. B. Montgomery.....Outside Overseer
T. E. Jett.....Master Mechanic

Vardry Cotton Mill.

Greenville, S. C.

J. C. Foster.....Supt.
Edgar Hargett.....Carder
R. B. Pinner.....Spinner
A. B. Barrett.....General Overseer
J. F. Gilmer.....Master Mechanic

Scotdale Mills,

Scotdale, Ga.

C. E. Wisner.....Superintendent
W. R. Roseberry.....Carder
W. Parr.....Spinner
L. Z. Daunway.....Weaver
C. Sims.....Cloth Room
N. Griffith.....Master Mechanic

Hartwell Mills.

Hartwell, Ga.

A. Frank Bruton.....Supt.
R. G. Nuttall.....Carder
J. E. Ewing.....Weaver
F. E. Young.....Spinner
R. R. Stovall.....Cloth Room
A. C. King.....Master Mechanic

Another Reason Why You Should Buy *GARLAND* LOOM HARNESSES

Our loom harnesses are critically inspected not only during the process of manufacturing, but also when ready to ship, when any harness, which is not up to the high standard we require, is thrown out. Every harness which you receive from us is therefore as near perfect as it is possible to make it, and the quality is always the same.

GARLAND MFG. CO.
Saco, Maine



MILL NEWS ITEMS OF INTEREST

Paw Creek, N. C.—Spinning frames for the Thrift Mfg. Co. have been received and are now being installed.

Whitehall, Ga.—The Georgia Mfg. Co. has placed an order with J. H. Mayes of Charlotte for Nasmith combers.

Caroleen, N. C.—The Henrietta Mills have purchased a filling conditioning machine from C. G. Sargent Sons, Corp., of Granteville, Mass.

Gastonia, N. C.—The Arlington Mills have ordered some additional combers through J. H. Mayes of Charlotte, N. C.

Central, S. C.—The Issaqueena Mills have ordered some Potter & Johnston lappers and Fales & Jenks spinning.

Lenoir City, Tenn.—The Holston Manufacturing Co. will build a one-story brick addition to their plant. It will be used as a bleachery. They manufacture hosiery.

Clinton, S. C.—The Clinton Cotton Mills have placed an order with J. H. Mayes of Charlotte for 3,000 additional spindles which will be installed at once.

Jacksonville, Ala.—The Profile Cotton Mills have decided to replace the looms in the old Verlina Mills with spindles for yarn production.

Piedmont, Ala.—The Coosa Mfg. are now installing the new combers recently ordered from John Helbertington & Sons of Boston, Mass.

Gastonia, N. C.—The Dunn Mfg. Co. has ordered addition Nasmith combers through J. H. Mayes of Charlotte, N. C.

Elkton, Md.—The Elkton Realty Co. have arranged with manufacturers of Philadelphia for the location of a hosiery mill here.

Fort Valley, Ga.—The Fort Valley Cotton Mill has placed an order with J. S. Cothran of Charlotte for a C. G. Sargent & Sons yarn conditioning machine.

High Point, N. C.—The Durham Hosiery Mills No. 3 have awarded the contract for one hundred additional knitting machines.

China Grove, N. C.—The Lillian Knitting Mill, which was recently completed at this place, will increase its capacity by the addition of fifty knitting machines.

Kanapolis, N. C.—The New Cabarus Mills expects to receive this week the large order of Nasmith combers which they purchased some time ago from John Helbertington & Sons of Boston, Mass.

Columbia, S. C.—J. M. Graham & Co. have plans for the establishment of a plant for the manufacture of fine hosiery.

Hagerstown, Md.—Cromer Brothers have awarded the contract for their recently mentioned addition to their silk plant. The building will be three stories high and will cost, including the equipment, about \$15,000.

Nicholasville, Tenn.—Plans are on foot here for the organization of a company with a capital stock of \$3,000, to build a hosiery mill. J. T. Duncan, of Douglas, Ga., and E. McD. Baechtel are at the head of the proposed company.

Columbus, Ga.—The capital stock of the Perkins Hosiery Mills, of which C. L. Perkins is president, will be increased from \$300,000 to a sum not exceeding \$750,000. The increase, it is said, is for the purpose of enlargements and extensions.

Worthville, N. C.—The properties of the Worth Manufacturing Co., recently noted as being in bankruptcy, will be sold at public auction on December 9th. The company operates a cotton mill at Worthville and one at Central Falls, N. C.

Lindale, Ga.—Fire in the picker room of the mill of the Massachusetts Mills in Georgia, did considerable damage by burning an amount of cotton and causing the room and machinery to be drenched by water while extinguishing the flames.

Raleigh, N. C.—At a recent meeting of the stockholders of the Raleigh Mills, A. A. Thompson resigned as president and was succeeded by J. R. Chamberlain. The other officers were re-elected and the business of the past year was found to have been satisfactory.

Troy, N. C.—The newly organized Troy Knitting Co. has let contract to the R. A. Brown Construction Co., of Concord, for the erection of a three story brick mill building, to be 100x60 feet, and a one story building, 60x40 feet, also a one-story dye-house. They will use electrically driven knitting machinery.

Landis, N. C.—The Corriher Mills have placed an order with J. H. Mayes of Charlotte for an equipment of 4,000 spindles which are to be operated on hosiery yarns. The equipment will consist of Potter & Johnston lappers and carders, Woonsocket roving and drawing frames, Fales & Jenks spinning and Easton & Burnham spoolers. The building was completed several years ago, but no machinery has previously been installed.

Charleston, S. C.—The Massasoit Manufacturing Co., makers of bagging, was slightly damaged by fire last week. The fire caught in the picker room, among the linters and bagging, but was prevented from doing much damage by the private fire protection of the company.

Tennille, Ga.—A plan is on foot for starting up the Tennille Cotton Mills which have been idle for several years. A proposition has been made by a well known mill man and accepted by the local stockholders and if also accepted by C. E. Riley & Co., of Boston, Mass., the mill be put in operation at once.

Shelby, N. C.—M. N. Hambright has started suit against the Lily Mill and Power Company for annual damage to his bottom land on Hickory Creek on account of ponding water from the Lily Mill power dam. O. M. Gardner and Tillet and Guthrie of Charlotte are his attorneys.

Connelly Springs, N. C.—The Connelly Springs Knitting Mills Co., has been incorporated and have the privilege to operate one or more mills for spinning yarns, knitting hosiery and underwear and doing other textile manufacturing business. Capital, \$100,000, of which \$14,600 has been subscribed. Incorporators: D. B. Mull, 80 shares and one to five shares subscribed each by E. J. Hudson, D. P. Hudson, J. C. McGalliard, J. E. Hudson, J. M. Sides, J. M. Lowell and J. A. McCall.

Greensboro, N. C.—A petition was made before Judge James E. Boyd by the Mt. Pleasant Manufacturing Company, cotton goods, that it be decreed by the court to have a full discharge from all debts provable against the company's estate under the bankrupt acts, except such debts as have been accepted, the company having duly surrendered its property and complied with all requirements. Judge Boyd referred the matter to J. E. Alexander, of Winston-Salem, special master.

St. James City, Fla.—The Sisal Hemp and Development Co. now has its entire manufacturing plant in operation and has begun to ship its product. The buildings have been completed and machinery installed as was reported some time ago. The main building is 210x90 feet and there are three other smaller buildings. The mill is an 80 spindles plant, the machinery costing about \$200,000, and having a daily capacity of six tons of rope and twine. The company is using Manila hemp from the Philippine Islands, and sisal hemp from Nacua. It however, has planted 300 acres in hemp, and in the future expects to grow its own supply.

Anderson, S. C.—The balance of the money, amounting to \$9,313.54 of the original purchase price of \$125,000, of the Cox Mills will be paid out pro rata to the creditors of the company on their claims by Receiver J. R. Vandiver, according to a decree signed by Federal Judge Smith at Charleston. Mr. Vandiver said that he had no statement to make, that the figures as to what per cent if their claims will be received by the creditors have not yet been determined. The Cox Mill, as noted, was bought under the hammer by Wellington Sears & Co., and is now being reorganized and enlarged.

Jacksonville, Ala.—As a result of a controversy between the Profile Cotton Mills, and Geo. P. Ide over the premises that the water pipes of the mill traverse, the mill has been deprived of its water supply and forced to shut down. W. I. Greenleaf, manager of the mills stated the mills might be closed down indefinitely. The company, he stated, would seek redress in courts if necessary. The matter is not simply one that involves a few hundred feet of pipe line, but it involves a tract of line over which this pipe line traverses, which is owned by Geo. P. Ide, and it will be necessary for the mill and Mr. Ide to come to some agreement over the right of way.

Geo. P. Ide was formerly president of the mill, it then being known as the Ide Cotton Mills.

Monroe, N. C.—Considerable litigation is predicted relative to the recent sale of the Monroe Cotton Mills under an assignment to a new corporation which is known as the Jackson Mills Co. and which has put the mill in operation. Austin & Correll of Monroe, N. C., Carolina Supply Co., of Greenville, S. C., and the J. Hackett Foundry Co., of Charlotte as creditors of the Monroe Cotton Mills have brought suit to have the sale set aside and asked to have the Monroe Cotton Mills placed in bankruptcy.

A preliminary hearing was held at Charlotte. Referee in Bankruptcy John Robinson, but the defendants alleging that the bankruptcy petition was not regular have appealed to the Federal Court.

Augusta, Ga.—A temporary injunction, restraining the City of Augusta from the use of the property of the Riverside Mills, along the levee right-of-way, and against the Charleston & Western Carolina Railroad Company, prohibiting the railroad from removing its tracks on the river bank in the rear of the Riverside Mills, was granted the Riverside Mills in the superior court by Judge Henry C. Hammond. The case was set for a further and complete hearing this week.

The filing of this injunction against the city and the railroad

company, by the Riverside Mills, was brought about, it is alleged, because the agreements in the contract first made by the Riverside Mills with the city and the Charleston & Western Carolina Railroad are not being lived up to.

Hard Yarn Spinners Meet.

The Southern Hard Yarn Spinners Association held a meeting in Charlotte, Wednesday morning. All sessions were behind closed doors and no information was given to the press.

The meeting was fairly well attended and it is understood that a new price schedule was enacted.

Cotton Consumed.

Washington.—Cotton consumed in the United States in October 542,809 bales the census bureau announces. On hand October 31st in manufacturing establishments 1,072,274 bales; in independent warehouses 2,551,964 bales; exports of domestic cotton during October 1,517,838. Imports 5,372 bales. Cotton consumed included 17,955 of foreign cotton, and 31,257 bales lint. Consumption in cotton growing states 273,534; all other states 269,273 bales. Active spindles in October numbered 28,838,024, an increase of 800,291 over October last year. Of these 12,071,652 were in the cotton growing states.

Commercial Appeal Cotton Crop Estimate.

The Commercial Appeal of Memphis, Tenn., estimates the growth of this year's cotton crop at 13,527,000 bales. These figures do not include linters.

The estimate is based on the answers of correspondents from all parts of the cotton belt, and represent careful inquiries on their part into the size of the crop in their sections.

The hot weather during late August and early September brought about an early opening of the crop, and it is probable that a larger percentage of the crop has been picked to date than ever before known. The high price paid for the staple has resulted in a rush by farmers to get their product to market, there being almost no holding reported. A few instances of holding for higher prices are reported from districts where heavy rains damaged the grade, and farmers refuse to take the price bid for the low grades. These are very few, however.

Damage from frost was confirmed almost exclusively to Eastern Arkansas where much damage was done in the overflowed territory, and to the eastern states, North



TURBO-HUMIDIFIER
Solves the Moisture Problem

When you buy raw Cotton, Wool, and other fibres you also buy enough water to depreciate your profits—if you do not put the water back into your finished product.

If you have not the correct humidity in your plant for the material you handle—it will lose its moisture.

And you will lose the weight you paid for.

The Turbo-Humidifier puts back the moisture—giving the finished material its natural weight and saving your profits.

The Turbo delivers pure "pulverized water" into the atmosphere of your different departments. It insures in all seasons the right degree of humidity for any condition or material.

It will cost you only a red stamp to get proof of these fact claims. Ask for the proof.

THE G. M. PARKS CO.
FITCHBURG, MASS.

Southern Office, Commercial Bldg., Charlotte, N. C.
J. S. COTHRAN, Manager

Carolina having suffered especially heavy in this regard. Staple is said to be fairly good in the east, but much damage has resulted in the central and western portions of the belt from heavy rains in September.

The estimate by states follows:

	Bales
Tennessee	323,000
Mississippi	1,130,000
Arkansas	810,000
Oklahoma	807,000
Alabama	1,469,000
Georgia	2,489,000
Texas	3,662,000
South Carolina	1,430,000
North Carolina....	875,000
Louisiana	402,000
Others	175,000

United States.....13,572,000

Openers and Beaters.

There is not a reader who will not admit that the cotton found in process at the present time is more fluffy than formerly. There is only one reason and that is that the cotton receives a too severe treatment in the picking department. It is claimed that a better yarn and a stronger yarn can be made in England, and no wonder. In most mills in England, we find the beater running much slower than in the mills on this side of the water, and besides the series of beaters made to act on the stock are less than here. The chief feature of the Crighton beater was that it struck the stock in space, unlike the present system which is to have the stock struck by a blade having a feed roll for a cushion. The type of picking machinery of the present time takes the stock more fluffy than when the Crighton opener was found in the picker room equipment.

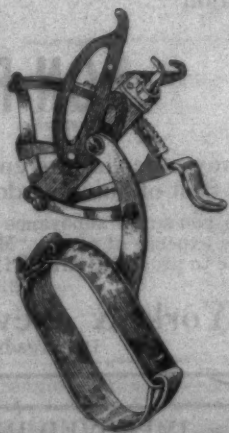
There are a great many changes necessary in the carding room of a cotton mill, in order to attain the strongest of yarn, and to eliminate to a large degree, the unnecessary amount of waste done in every department in the mill. There are many mills at the present that have adopted what is known as the "Carding Beater" for the finisher picker only, which I claim is a gain in efficiency. We must of course have bladed beaters in the opener to open the cotton, but when bladed beaters are used in every picking machine, the sheet of lap is taken to the card in a matted state. By having the finisher picker beater of the carding type the cotton is cleaned better, and the fibres are better separated and straightened out, thus presenting fibres to the card in a more parallel order.—Ex.

"The Widow Smith's husband didn't leave her much when he died, did he?"

"No; but he did when he was alive."—Ex.

The Byrd Knotter

Price \$20.00



Simple of Operation
Durability Guaranteed
Small Repair Cost

Byrd Manufacturing Co.
DURHAM, N. C.

AMERICAN MOISTENING COMPANY

BOSTON, MASSACHUSETTS

WILLIAM FIRTH, President

FRANK B. COMINS, Vice-Pres. & Treas.

THE ONLY PERFECT SYSTEM OF AIR MOISTENING
COMINS SECTIONAL HUMIDIFIER

JOHN HILL Southern Representative, Third Nat. Bank Building, ATLANTA, GEORGIA

Cotton Goods Report

New York.—There was a brisk demand for cotton goods last week and many orders are overdue. Jobbers want immediate deliveries on many lines of cotton goods and state that the demand for staple goods is very strong in some quarters. The demand at present is much stronger than is usual for this time of year, due to the fact that many of the mills have not been able to catch up with their orders, and that buyers who are short of goods are forced to hunt for them in other quarters, while they are waiting for deliveries on their old orders.

The volume of business which is coming forward at the present time is sufficient to cause considerable uneasiness to jobbers regarding the delivery of goods which they have already ordered. The mills have many orders still to come forward, orders for which were booked when prices were quite a little below those now in force. Buyers state that while manufacturers are not trying to get out of these old orders, that deliveries are very slow, particularly on goods which are badly needed for current requirements.

New business is being placed conservatively, with deliveries through to the first of the year. Buyers in the West and Northwest are in the market for heavy goods, and orders for blankets and goods of similar kind are coming forward steadily. In the gray goods market, concessions are still being sought, especially for December needs, but the mills are showing little or no interest in the offers being made. Sales at prices slightly under the open levels are small and for small quantities only.

During the week 38 1-2-inch, 64x60s, sold on contract at 5 3-8 cents. Toward the close of the week these goods brought 5 7-16 cents because of the change in the cotton market; 68x72s, 39-inch, 4.75, are quoted at 6 1-2 cents for spot, but sold on contract at 6 cents; 27-inch, 64x60s, 7.60, old during the week at 3 9-16; 37-inch, 6.50, drills sold during the week at 6 3-4 cents.

The trading in the Fall River print cloth market, continued quiet this week, although prices have generally held firm. Concessions have been made on some styles, chiefly medium odds, but quotations remain unchanged from the previous week. The total sales are estimated at approximately 90,000 pieces, somewhat less than a week ago. About 45,000 pieces were spots and quick delivery.

Trading was confined chiefly to wide and medium wide goods, with a good demand for sateens. Prices held firm on these styles and on all the standards, and the shading was done on the medium odds. There was practically no call for narrows, the offer of Southern manufacturers to dispose of these styles at an eighth of a cent less than the quotations here attracting what little

buyers have not seen fit to make offers here. Buyers have paid full prices without much haggling for the wide styles. Mills are pretty well cleaned out of wide goods and the buyers who have been following business there has been in that line. It is likely that the mills would shade prices on narrows here below present quotations if there was any great demand, but they would not meet the Southern prices and the ing a hand to mouth policy in taking up these styles, realize that they are not in a position to dicker. With the exception of the narrow styles, there is practically no accumulation by any of the mills. Narrows are now beginning to pile up, however, since the demand fell off about a month ago. Mills report more of a demand for spots and quick delivery this week than for several weeks past and it seems that the buyers as converters are just covering immediate needs and are not stocked up. Contracts that have been placed extend, in most cases, for eight to ten weeks beyond Dec. 1.

Prices in New York were as follows:

Prt cloth, 28-in., std 4	—
28-in., 64x60s 3 3-4	—
4-yard, 80x80s 7 1-2	7 1-2
Gray goods, 39-inch,	
68x72s	6 1-8 6 1-4
38 1-2-inch std.... 5 5-8	5 3-4
Brown drills, std .. 8 1-4	—
Sheetings, so'h'n std 8 1-4	—
3-yard	7 3-4
4-yard, 56x60s 6 3-8	6 1-2
4-yard, 56x60s.... 6 3-8	6 1-2
4 1-2-yard, 55x44s 5 3-8.	5 1-2
5-yard 48x52s 5	5 1-8
Denims, 9-oz. 14 1-2	17
Stark, 8-oz., duck.. 14	—
Hartford, 11-oz., 40-	
in., duck	16 1-2
Ticking, 8-oz	14
Standard, fancy pt 5 1-4.	—
Standard, gingham 6 1-2	—
Fine dress gingham 8	9 3-4
Kid fin'd cambrics. 4 3-4	4 7-8

Weekly Cotton Statistics.

New York, Nov. 14.—The following statistics on the movement of cotton for the week ending Friday, November 14, were compiled by the New York Cotton Exchange:

WEEKLY MOVEMENT.	
Port receipts	491,943
Overland to mills and	
Canada	47,937
Southern mill takings (estimated)	90,000
Gain of stock interior towns	63,009
Brought in sight for week.	692,889
TOTAL CROP MOVEMENT.	
Port receipts	4,429,969
Overland to mills and	
Canada	201,857
Southern mill takings (estimated)	770,000
Stock at interior towns in excess of September 1....	480,038
Brought into sight thus far	
for season	5,881,864

GRINNELL WILLIS & COMPANY

44-46 Leonard Street, New York

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RICHARD A. BLYTHE

(INCORPORATED)

Cotton Yarns Mercerized and Natural

ALL NUMBERS

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The Desirability of the South

as the place to manufacture cotton goods is illustrated in the increase of 67% quoted by census department. We can offer attractive situations for those desiring to enter this field.

J. A. PRIDE

General Industrial Agent, Seaboard Air Line Railway

NORFOLK, VIRGINIA.

If "Mill Seconds" Mean Loss to You---

There's a lubricant which will not work from roll necks onto the flutes or rolls; will not spatter from comb-boxes over card clothing and drawing cans; will not run off any bearing like fluid oil—



offers many other improvements over fluid oils. will do everything the best of fluid oils do except drip and spatter.

Do you suffer annoyance from stained yarns? We pay all the expense of a test. Mention on a card where you would like to prove NON-FLUID OIL.

ADDRESS DEPT. H.

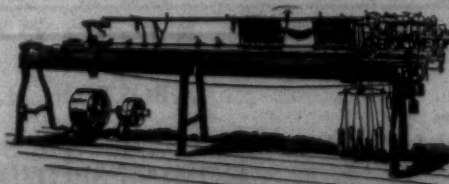
New York & New Jersey Lubricant Co.
165 Broadway, NEW YORK

IMPROVED INMAN AUTOMATIC BANDING MACHINES

MANUFACTURED BY

COLE BROTHERS

PAWTUCKET, R. I.



The only automatic machine in the world for making loop bands for spinning frames. Superior quality of bands without any cost of making. All bands exactly alike and no stretch of bands after they are put on. Saves child labor.

Also Beaming Machine to beam on to slasher beams.

The Yarn Market

Philadelphia, Pa.—The yarn market was generally reported as dull last week. There were a few inquiries for considerable quantities of yarn for future deliveries, and some sales, but most of the dealers said that business was very light. Yarn prices were decidedly softer, and most of the business to dealers who were able to quote prices from one-half to one cent lower than spinners. The receipts of yarn from the South continue large, but they are not going into the hands of dealers as rapidly as they were a month ago. More yarns are going into storage than at any other time for the past six months, but the accumulation in public warehouses has not become very large.

The demand for cheap and medium grade hosiery is reported good and dealers are well sold up on production for several months. However manufacturers are well covered on yarns and were not free buyers during the week. There were a few sales of 20,000 to 35,000 pounds for late deliveries, but the bulk of the business was limited to small lots for quick delivery.

Combed yarns, both single and ply were in light demand last week. Some lines of combed yarn hosiery are said to be well sold up, but makers of mercerized goods have a great part of their machinery idle. Knitters say that they cannot pay the prices asked by spinners and for combed yarns and make a profit in their hosiery. Prices for two-ply combed yarns were very irregular. Sales of 40-2 were made for 41 to 41 1-2 cents, 50-2 for 47 cents, 60-2 for 32 1-2 cents. Some dealers are looking for a marked decline in prices of both single and ply combed yarns. They say that the substitution of high grade mule spun yarns for combed yarns will weaken the demand and that prices must come lower.

Southern Single Skeins.

4s to 8s	20	—20 1-2
10s	21	—21 1-2
12s	22	—
14s	22	1-2
16s	23	—23 1-2
20s	24	1-2
26s	26	—
30s	26	—
30s	27	1-2

Southern Two-Ply Skeins:

8s	19	1-2—20
10s	21	—21 1-2
12s	22	—
14s	22	1-2—23
16s	22	—23
20s	24	1-2
24s	25	1-2—26
26s	26	—26 1-2
30s	27	1-2
40s	33	1-2—34
50s	38	—
60s	48	—49

Carpets and Upholstery Yarn in Skeins:

9-4 slack	21	1-2
8-4 slack	21	1-2—22
8-3-4 hard twist	19	1-2

Southern Single Warps:

8s	21	1-2
10s	22	—
12s	22	1-2
14s	23	—23 1-2
16s	23	1-2—24
20s	24	1-2—25
24s	26	—
26s	26	1-2
30s	27	1-2
40s	33	—

Southern Two-Ply Warps:

8s	21	—
10s	22	1-2
12s	22	1-2
14s	23	—23 1-2
16s	23	1-2—24
20s	24	1-2
24s	25	1-2—26
26s	26	—26 1-2
30s	27	1-2—28
40s	34	—

Southern Frame Spun Yarn on Cones

8s	21	1-2
10s	22	—
12s	22	1-2
14s	23	—
16s	23	1-2
18s	24	—
20s	24	1-2
22s	25	—
24s	25	1-2—26
26s	26	—26 1-2
30s	28	—

Two-Ply Carded Peeler in Skeins:

20s	26	—26 1-2
22s	27	—
24s	27	1-2
26s	27	1-2—28
30s	29	—29 1-2
36s	32	—
40s	34	1-2
50s	40	—41
60s	50	—

Single Combed Peeler Skeins:

20s	30	1-2—31
24s	33	1-2—34
30s	35	1-2—36
40s	41	—41 1-2
50s	46	1-2—47
60s	53	—55

Two-Ply Combed Peeler Skeins:

20s	31	1-2—32
24s	32	1-2—33
30s	36	—36 1-2
40s	42	—44
50s	41	—49
60s	52	—53
70s	58	—60
80s	68	—70

A. M. Law & Co. F. C. Abbott & Co

Spartanburg, S. C.

Charlotte, N. C.

BROKERS

BROKERS

Dealers in Mill Stocks and other Southern Securities

Southern Mill Stocks, Bank Stocks
N. C. State Bonds, N. C. Railroad Stock and Other High Grade Securities

South Carolina and Georgia Mill Stocks.

Bid Asked

Abbeville Cot. M., S. C.	100	...
Aiken Mfg. Co., S. C.	35	...
Amer. Spinning Co., S. C.	154	...
Anderson C. M., S. C., pf	90	...
Arcadia Mills, S. C.	91	...
Aragon Mills, S. C.	65	...
Arkwright Mills, S. C.	100	103
Augusta Factory, Ga.	35	...
Avondale Mills, Ala.	115	120
Belton Cot. Mills, S. C.	100	...
Brandon Mill, S. C.	75	...
Brigon Mills, S. C.	61	...
Calhoun Mills, S. C.	85	...
Capital Cot. Mills, S. C.	85	...
Chiquola, S. C., com.	105	115
Clifton Mfg. Co., S. C.	101	...
Clifton Mfg. Co., S. C., pf	100	...
Clifton Cot. Mills, S. C.	125	...
Courtenay Mfg. Co., S. C.	90	...
Columbus Mfg. Co., Ga.	92½	...
Cox Mfg. Co., S. C.	100	...
D. E. Cinverse Co., S. C.	85	...
Dallas Mfg. Co., Ala.	100	...
Darlington Mfg. Co., S. C.	65	...
Drayton Mills, S. C.	30	40
Eagle & Phenix Mill, Ga.	80	90
Easley Mill, S. C.	180	...
Enoree Mfg. Co., S. C.	25	50
Enoree Mfg. Co., S. C., pf	100	...
Enterprise Mfg. Co., Ga.	65	70
Exposition Mill, Ga.	150	...
Fairfield C. Mills, S. C.	70	...
Gaffney Mfg. Co., S. C.	62½	...
Gainesville C. M. Co., c'm	75	...
Glennwood Mills, S. C.	141	...
Glenn-Lowry Mfg. Co., S. C.	101	...
Glenn-Lowry Mfg. Co., S. C., preferred	86	...
Gluck Mills, S. C.	80	...
Granby Cot. Mills, S. C.	...	...
Granby C. M., S. C., pf	...	...
Graniteville Mfg. Co., S. C.	140	145
Grendel Mill, S. C.	100	...
Hamrick Mills, S. C.	102	...
Hartsville C. M., S. C.	170	...
Inman Mills, S. C.	105	...
Inman Mills, S. C., pf	100	...
Jackson Mills, S. C.	90	...
King, John P. Mfg. Co., Ga.	80	86
Lancaster C. Mills, S. C.	130	...
Lancaster C. M., S. C., pf	97	...
Langley Mfg. Co., S. C.	70	75
Laurens Mill, S. C.	15	...
Limestone Mill, S. C.	125	133
Lockhart	40	...
Marlboro Mills, S. C.	65	75
Mills Mfg. Co., S. C.	110	...
Mollobon Mfg. Co., S. C.	90	...
Monaghan Mills, S. C.	...	...
Newberry C. Mills, S. C.	135	140
Ninety-Six Mills, S. C.	135	...
Norris C. Mills, S. C.	102	...
Orangeburg Mfg. Co., S.	...	...

North Carolina Mill Stocks.

Bid. Asked

Arista	...	...
Arlington	141	...
Avon	...	...
Brown, pfd	100	...
Cannon	151	...
Cabarrus	150	...
Chadwick-Hoskins, pfd.	100	...
Chadwick-Hoskins, com	85	...
Chronicle	160	...
Cliffside	190	195
Efford, N. C.	115	121
Erwin, com	150	...
Erwin, pfd	102	...
Gibson	103½	...
Gray Mf. Co.	117	120
Henrietta	141	...
Highland Park	185	...
Highland Park, pfd.	102	...
Imperial	130	...
Kesler	150	165
Loray Mills, pfd.	95	...
Loray, com	10	...
Lowell	200	...
Majestic	150	...
Patterson	125	...
Vance	70	...
Washington Mills	10	...
Washington Mills, pfd.	100	...
Wiscasset	135	...
Olympia Mills, S. C., pfd	...	...
Parker Cotton Mills, guaranteed	100	100&int
Parker, pfd.	40	45
Common	16	20
Orr Cotton Mills	92½	...
Ottarway Mills, S. C.	100	...
Oconee Mills, common.	100	...
Oconee Mills, pfd.	100	& in.
Pacolet Mfg. Co., S. C.	101	...
Pacolet Mfg. Co., pfd.	100	& in.
Parker Mills, pfd	40	...
Pelzer Mfg. Co., S. C.	135	...
Pickens C. Mills, S. C.	100	...
Piedmont Mfg. Co., S. C.	144	160
Poe F. W.) Mfg. Co., S. C.	105	115
Richland C. M., S. C., pf	...	...
Riverside Mills, S. C.	25	...
Roanoke Mills, S. C.	140	160
Saxon Mill, S. C.	126	...
Sibley Mfg. Co., Ga.	64	...
Spartan Mill, S. C.	125	...
Tucapau Mill, S. C.	280	...
Toxaway Mills, S. C.	72	...
Union-Buffalo, 1st pfd.	35	40
Union-Buffalo Mills, S. C., 2nd pfd.	10	...
Victor Mfg. Co., S. C.	...	...
Ware Shoals Mfg. Co., S. C.	75	...
Warren Mfg. Co., S. C.	80	85
Warren Mfg. Co., pfd.	100	...
Watts Mill, S. C.	35	...
Williamston Mill, S. C.	97	...
Woodruff C. Mills, S. C.	95	...
Woodside C. Mills, S. C.	...	...

Personal Items

A. A. Thompson has resigned as president of the Caraleigh Mills, Raleigh, N. C.

J. R. Chamberlain has been elected president of the Caraleigh Mills, Raleigh, N. C.

Arthur Cobb of Westminster, S. C., has accepted a position with the Hannah Pickett Mills, Rockingham, N. C.

J. E. Wilson has been promoted to second hand in weaving at the Canton (Ga.) Cotton Mills.

J. H. Higginbotham has resigned as overseer of weaving at the Canton (Ga.) Cotton Mills and will engage in the mercantile business.

W. D. Briggs, secretary and treasurer of the Caraleigh Mills, Raleigh, N. C., was in New York on business last week.

Ben F. Houston of Monroe, N. C., has accepted the position of superintendent of the Hamer (S. C.) Cotton Mills.

Arrested in Serious Charge.

L. A. Harper of the Dunnean Mills, Greenville, S. C., was arrested Tuesday afternoon charged with an attempted assault upon the wife of a man living near the mill. He was held at the point of a gun by his accuser until the sheriff arrived. Harper protests his innocence of the charge.

Mill Play Ground Association.

As a result of the interest developed among the operatives of the Arcade-Victoria Mills, Rock Hill, S. C., in connection with the fair recently held by them, as noted, steps are being taken for the organization of a play ground association. The organization has already created a board of governors, who have appointed an athletic committee. Membership fees are now being paid in by the operatives and definite plans will be worked out and put into operation at once.

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Semi-Weekly\$1.00 per annum
All the News! All the Time!

Adv.

Philanthropy.

"I feel pretty good to-day," said Jones to his wife. "I saved a man from lifelong misery."

"How was that?"

"My assistant wants to get married and asked for a raise. But I wouldn't give it to him."—Ex.

Methods of Cleaning Fires.

(Continued from Page 9)

ash from melting. If the fires are thickened beyond a certain limit, the resistance of the fuel-bed to the flow of air through it is so increased that very little or none of the air flows through the grate and the layer of ashes next to it. Most of the air is then introduced into the furnace through the firing doors and cracks in the walls and other leaks in the settings. Of this air introduced into the furnace otherwise than through the grate, very little is used in the combustion of coal. The air is merely heated as it passed through the furnace, and escapes into the stack, carrying a great deal of the heat away. At the same time, on account of lack of flow of air through the grate, the ash becomes heated by the hot fuel above it and fuses into clinker.

If the coal burns too fast and the safety valve is apt to blow off, the dampers in the breeching should be closed. The ash-pit doors should never be shut. If the ash-pit is closed instead of closing the damper the access of cool air to the grate and the ash is prevented, and clinkers will result; at the same time the air is drawn into the set-

ting through the openings in the furnace doors and through all sorts of leaks in the settings, and carries away a great deal of heat.

The greatest loss in the process of steam making is the heat which is carried with the air and the furnace gases into the chimney. This loss amounts to 20 or 30 per cent of the total heat in the coal; it is seldom less than 15 per cent, and increases directly with the air leakage into the boiler settings. Therefore all leakage and access of air not used in combustion should be avoided. The loss of coal in the ashes is about 3 per cent; it seldom rises to more than 5 per cent.

A day's run should be started with a thoroughly clean fire.

More shut-downs are caused by improperly cleaned fires than by any other single cause.

"Where," asked the female suffrage orator, "would man be today were it not for woman?" She paused a moment and looked around the hall. "I repeat," she said, "Where would man be today if it were not for woman?"

"He'd be in the Garden of Eden eating strawberries," answered a voice from the gallery.—Ex.

SPINNING RINGS Best Quality Guaranteed

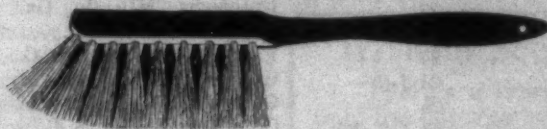
Also Manufacturers of Drop Wires

The Connecticut Mill Supply Co.,

Torrington, Connecticut

Southern Representatives, PEARSON & RAMSAUR, Greenville, S. C.

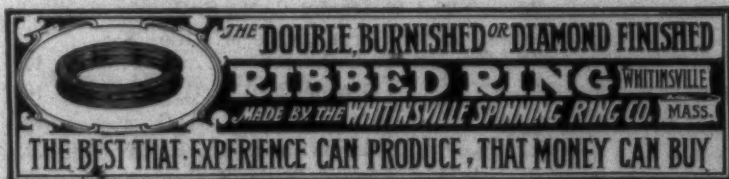
THE FELTON COMBER DUSTER



A two-row Brush of good, lively stock. Wire drawn construction. Not affected by Oil or Water. Will stand a lot of abuse.

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SOLUBLE SIZING TALLOW



THIS PREPARATION is simply raw beef tallow made soluble. In view of the fact that raw tallow will not dissolve and hence does not combine with starches, we herein offer an article that avoids these objectionable features. Soluble Sizing Tallow dissolves and combines readily with all starches and acts as a most valuable softening agent. Users of this article will avoid the danger of mildewed warps and also the disagreeable odor of Raw Tallow in the goods. In short, an excellent softening agent.

ARABOL MANUFACTURING CO.

100 William Street, New York

CAMERON MacRAE Southern Sales Agent CHARLOTTE, N. C.

Valorous.

"How can you doubt my love?" said George. "Did I not promise to do anything for you, even fight wild beasts, if you say so?"

"Well, there's your chance. Here's father coming now."—Ex.

Cotton Goods in Canada.

The first installment of the report of Commercial Agent, W. A. Graham Clark, of the United States Department of Commerce, appears in this issue. The report compiled after a most thorough investigation into conditions here, is perhaps the most exhaustive treatise ever compiled on this branch of Canada's industries. It should be of considerable interest to all those engaged in or interested in the cotton industry here.—Canadian Textile Journal.

Choice.

The conductor of an elevated train in Chicago, noticed that one of his passengers, who had been inebriated a little too freely, had fallen asleep. Thinking the train might pass the man's station, the conductor went up to him, shook him and asked him where he was going.

"I don't know," came back the reply.

"What station do you want?" asked the conductor.

"Well, hie! what station you got?" quired the other.—Ex.

His Wage.

A good many years ago, in the state of Iowa, there was a small boy hoeing potatoes in a farm lot by the roadside. A man came along in a fine buggy and driving a fine horse. He looked over the fence, stopped and said: "Bub, what do you get for hoeing those potatoes?"

"Nothin' ef I do," said the boy, "and hell ef I don't."—Ex.

The Old Tight Wad.

Mr. Closefist—And so you are the noble fellow who rescued my wife from in front of the street car at the risk of your life? Take this quarter, my heroic man, as an expression of our undying regard.

Heroic Rescuer—All right, boss. You know better'n I do what the woman's worth.—Ex.

Clara Mill.

Gastonia, N. C.

C. M. DunnSupt.
Robt. CaldwellSpinner

Gastonia, N. C.

A. M. DixonSupt.
J. C. SmithNight-Supt.
B. F. Ormond.....Carder and Spinner
R. L. Moore.....Master Mechanic

Wallace Mills,

Jonesville, S. C.

G. H. Fairbanks.....Superintendent
N. J. James.....Carder and Spinner
J. E. Myers.....Weaver
J. A. Kirkpatrick.....Master Mechanic

Want Department

Want Advertisements.

If you are needing men for any position or have second hand machinery, etc., to sell, the want columns of the **Southern Textile Bulletin** afford a good medium for advertising the fact.

Advertisements placed with us reach all the mills.

Employment Bureau.

The Employment Bureau is a feature of the **Southern Textile Bulletin** and we have better facilities for placing men in Southern mills than any other journal.

The cost of joining our employment bureau is only \$1.00 and there is no other cost unless a position is secured, in which case a reasonable fee is charged.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern textile industry.

Beamer Wanted.

Wanted at once—

Two first class pattern beamers

Two first class pattern beamers

One first class machinist.

Pay \$12.00 per week for each.

Men with family preferred.

J. B. Boyd, Supt.,

Patterson Mills,

Roanoke Rapids, N. C.

Section Men Wanted.

Want two section men on Howard & Bullough spinning. Pay \$1.40 per day. None but hustlers need apply. Address N. B. Hill, Caswell Mill, Kinston, N. C.

WANT position as superintendent. Have long experience both as overseer of spinning and as superintendent. Can furnish references from former employers. Prefer weaving mill. Address No. 501.

WANT position as master mechanic. 23 years experience. Strictly sober. Good references from present and past employers. Have family of spinners and doffers. Have seldom changed positions. Address No. 502.

WANT position as superintendent of yarn mill or overseer of spinning in large mill. Age 23. Married. Strictly sober with no bad habits. Can furnish best of references as to ability and character. Address No. 503.

WANT position as superintendent or overseer of spinning. Now employed in large mill and giving satisfaction but prefer to change. Good references. Address No. 504.

WANT position as overseer of

weaving. Long experience. 11 years on last job. Age 35. Can furnish good references both as to character and ability. Address No. 505.

WANT position as overseer spinning twisting or winding. Have had long experience and can give good references. Now employed. Address No. 506.

WANT position as superintendent. Have had long experience and can secure production. Good references. Now employed, but want better position. Address No. 508.

WANT position as superintendent of small mill or carder and spinner in a large mill. Have had long experience and given satisfaction. Am a textile graduate. Address No. 509.

MANUFACTURING Chemist, making Softeners, Sizing and Finishing Compounds is open for engagement with a Sizing material concern or will act as Maker for Manufacturing concern. Starch expert and good salesman. Practical sizer on Cottons and Worsted, English experience. Address No. 510.

JOB WANTED as overseer in large card room or assistant superintendent. Now employed as superintendent of small mill, but would change for larger job. Good references and long experience. Address No. 511.

WANT position as superintendent of medium sized mill or overseer of spinning in large mill. Have had long practical experience and can furnish excellent references. Address No. 512.

WANT position as overseer carding at not less than \$3.00 per day. Have had 15 years experience in card room. 4 years as overseer. 29 years old. Married. Can give good references. Address No. 513.

WANT position as carder or spinner or both. Would accept job at \$3.00 per day. Can take job at once. Good references and long experience. Address No. 514.

WANT position as overseer carding with a first-class mill at \$3.50 or \$4.00 per day. Long experience. Can give good references. Address No. 515.

WANT position as carder or spinner or both by a young married man. Strictly sober and good manager of help. Best of references by past employers. Production guaranteed or know the reason why. Address No. 516.

WANT position as superintendent. Have had long experience and am

entirely competent. Can furnish satisfactory references and will give satisfaction. Address No. 517.

WANT position as superintendent. Have had long experience and given entire satisfaction. Reason for changing is for better salary. 45 years old. Married. Member of church, strictly sober. My experience has been from the ground up on both white and colored work. Address No. 518.

WANT position as overseer carding. 24 years experience in carding. Married. Sober. Good references. Can change on short notice. Address No. 519.

WANT position as superintendent or overseer carding or carder and spinner. Good references both as to character and ability. Address No. 520.

WANT position as overseer carding at not less than \$3.00 per day. Can give good references and can change on week's notice. Address No. 521.

WANT position as superintendent of spinning mill by practical man with 22 years experience in spinning. Am at present spinner in 50,000 spindle plant. Have been with present employers for eight years. Address No. 522.

WANT position as superintendent at not less than \$1,500. Now employed and giving satisfaction, but prefer a more modern mill. Can furnish the best of references. Address No. 523.

WANT position as overseer of carding at not less than \$2.50 per day. Have had long experience and can furnish best of references. Address No. 524.

WANT position as overseer weaving. I am an overseer of long experience on different classes of goods, both plain and fancies. Address No. 525.

WANT position as carder or spinner, or both, or superintendent of small mill. Have had 15 years' experience as practical mill man. Address No. 526.

WANT position as overseer of carding or carding and spinning in small mill. S. C. or N. C. preferred. 15 years experience. Age 44. Now employed. Would accept \$3 per day. Address No. 527.

WANT position as master mechanic. Have had long experience. Now employed and giving satisfaction but want larger job. Address No. 528.

WANT position as overseer of weaving. 23 years experience. Good references. Now employed. Have run large room. Age 45. Prefer room with Draper looms. Ad-

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dress No. 529.

WANT position as overseer of spinning or winding at not less than \$2.50 per day. 17 years experience. Have also taken textile course. Can furnish good references. Address No. 530.

WANT position as superintendent of yarn mill or carder and spinner. Have had long experience and can furnish good references. Would like to correspond with mill needing first-class man. Address No. 531.

WANT position as overseer of carding at not less than \$3.00. Have held present job 2 years and am giving satisfaction, but prefer to change. Good references from present and former employers. Address No. 532.

WANT position as overseer of dyeing. Have had 23 years' experience on warp and raw stock dyeing. 4 years' experience sizing warps. Have three hands besides myself. Address No. 533.

WANT position as superintendent of 5,000 or 10,000-spindle yarn mill or carder and spinner in large mill. Can furnish best of references. Age 35. Have been with present mill 6 years. Address No. 534.

WANT position as carder or spinner, or both, in a small mill. Have 10 years experience as overseer of carding and spinning. Married. Strictly sober. Now employed. Good references. Address No. 535.

WANT position as overseer of spinning, spooling, warping and twisting. Have 15 years experience. Middle aged. Married. Can furnish best of references. Address No. 536.

WANT position as overseer of carding and spinning. 4 years experience in card room. 13 years as overseer spinning. Good reason for wanting to change. Good references. Address 537.

WANT position as superintendent. Have had many years experience and can furnish first-class references from former employers. Sober, reliable and good manager of help. Address No. 538.

(Continued on next page)

(Continued from last page)

WANT position as carder or spinner or both. Am practical mill man of long experience and can furnish as reference present and former employers. Address No. 539.

WANT position as master mechanic. Have had wide experience with cotton mill plants and general repair work. Have first class engineer license. Am strictly sober and attend to business. Address No. 540.

WANT position as overseer of spinning in large mill or superintendent of small mill. Have had long experience and can furnish good references. Address No. 541.

WANT position as overseer of weaving. Have had long experience on both white and colored work and can furnish first-class references. Address No. 542.

WANT position as overseer of spinning or weaving at not less than \$3.00 per day. Can furnish best of references for either place. Prefer North or South Carolina. Address No. 543.

WANT position as overseer of carding. 31 years old. Married. Good habits and a hustler for production. Only reason for wanting to change is larger job. Can give good references. Address No. 544.

WANT position as overseer of weaving. 14 years' experience as fixer and overseer. Age 32. Strictly sober. I. C. S. graduate. Fine references. Address No. 545.

WANT position as superintendent in small mill or carder in large mill. Can give A 1 references. Age 39. 25 years mill experience. Held last job for six years. Address No. 546.

WANT position as traveling representative for a mill supply house or for a line of textile books or journals. Have good experience and can furnish good references. Address No. 547.

WANT position as carder or spinner on either white or colored work, either coarse or fine. Have experience on warping, twisting, etc. 12 years as overseer. Good references. Address No. 548.

WANT position as overseer of spinning. Have had long experience on both coarse and fine work. Can furnish satisfactory references. Address No. 549.

WANT position as overseer of carding in small mill or second hand in a large mill. Am now employed but prefer to change. Good references. Address No. 550.

WANT position as overseer of carding. Held last job three years and gave satisfaction. Can furnish satisfactory references. Address No. 551.

WANT position as superintendent. Now employed and giving satisfaction, but desire larger mill. Can furnish best of references. Address No. 553.

WANTED position as carder, spinner or superintendent. 20 years practical experience as overseer and superintendent. Can change on short notice. Good references. Address No. 554.

WANT position as master mechanic. Have had 30 years' experience as engineer and master mechanic. Would like to correspond with mill in need of such a man. Address No. 555.

WANT position as superintendent, assistant or overseer of weaving by a Northern man. 40 years of age. Married, moral and strictly temperate. 28 years experience on nearly all grades of cotton goods—plain or fancies, white or colored. Good spinner. Expert weaver, and textile graduate. 3 years in present position. Salary no object the first year. Three workers in family. Best of references. Address No. 552.

WANT position as overseer of weaving. Prefer print goods. Believe in looking out for production, quantity and quality at lowest cost. Have family. Present employers as references. Address No. 556.

WANT position as superintendent of small mill or overseer of spinning in large mill. Now employed as spinner and assistant superintendent and giving satisfaction. Good references. Address No. 557.

WANT position as superintendent or overseer of carding in large mill. Experienced on both white and colored goods. Satisfactory references. Address No. 558.

WANT position as superintendent of either yarn or weave mill. Have had long experience. Held present job three years. Good references. Address No. 559.

WANT position as overseer of carding. Now employed but want larger room. Have good experience in first-class mills and can furnish good references. Address No. 560.

WANT position as overseer of spinning or winding and spooling and slashing. 15 years experience. Now employed. Can give good references. Address No. 563.

WANT position as superintendent or superintendent and manager of either yarn or cloth mill. Am experienced on hosiery yarns. Competent and reliable. Can invest some capital in good proposition. Address No. 561.

WANT position as overseer of weaving. Now employed but want larger job. Have had experience on many lines of goods and can give

satisfaction. Good references. Address No. 562.

Hosiery and Knit Goods Industry.

(Continued from Page 3)

part of the products of the industry were manufactured in establishments with products valued at from \$100,000 to \$1,000,000, such establishments reporting 66.4 per cent of the industry in 1909 and 70.5 per cent in 1904. The average value of products per establishment increased from \$119,822 in 1904 to \$145,665 in 1909.

The total expenses reported for hosiery and knitting mills in 1909 were \$175,729,583, distributed as follows: Cost of materials \$110,241,053, or 62.7 per cent; wages, \$44,740,223, or 25.5 per cent; salaries \$7,691,457, or 4.4 per cent and miscellaneous expenses made up of advertising ordinary repairs of buildings and machinery, insurance, traveling expenses and other sundry expenses, \$13,056,850, or 7.4 per cent.

Most of the mills in the hosiery and knit goods industry purchase the yarn which they use instead of spinning it themselves. In the case of merino yarn, however, the quantity made by the establishment in the industry for their own use was more than five times as great as the quantity purchased. The total cost of purchased yarns of all classes in 1909 was \$68,389,818, or 62 per cent of the cost of all materials, while the cost of the raw cotton and wool used represented 10.6 per cent of the total cost of materials.

The total cost of the materials used in the industry increased 115.3 per cent from 1899 to 1909. The amount of raw cotton consumed in the industry shows an increase of 25,964,722 pounds, or 52.5 per cent, between 1899 and 1909, while its cost more than doubled. Wool, on the contrary, shows a considerable decrease for the decade, amounting, on the scoured basis, to 7,448,469 pounds, or 57.2 per cent; this decrease, however, was confined entirely to the second half of the decade the consumption increasing somewhat between 1899 and 1904. Shoddy and wool waste and noils show an increase from 1899 to 1909, although shoddy shows a slight decrease between 1904 and 1909. The greater part of the shoddy, mungo, and wool extract was reported from New York. More than one-half of the total amount of purchased wool waste and noils used in the industry in 1909 (4,398,579 pounds) was also reported from New York.

Products.

Of the total value of products of the industry in 1909, that of hosiery constituted 34.3 per cent; that of shirts, drawers, and combination suits, 42.2 per cent; that of sweaters, cardigan jackets, etc., 11.2 per cent; that of gloves and mittens, 3.6 per cent. In the case of each of the classes of hosiery, as well as of shirts and drawers and combination suits; the cotton product predominated as to both quantity and value. There was a very great increase during the decade in the production of sweaters, cardigan jackets, etc., and of hoods, scarfs, nubbies, etc., and a considerable increase in the produc-

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tion of knit gloves and mittens and shawls but a decrease in the output of boot and shoe linings.

The total value of products reported for the hosiery and knit gloves and mittens and shawls, but a decrease in the output of boot and shoe linings.

The total value of products reported for the hosiery and knit goods industry in 1909 (\$200,143,527) includes \$2,814,438 representing the products other than hosiery and knit goods and of yarns, which class of products are usually the primary products of other industries. The subtraction of this latter figure from the total value of products for the industry leaves a remainder of \$197,329,089, which represents approximately the value of the hosiery and knit goods made in the industry. On the other hand, hosiery and knit goods to the value of \$2,975,749 were reported by establishments engaged primarily in the manufacture of other products, although this may not represent the total production of hosiery and knit goods industry, as some establishments making these products may not have reported them separately. Adding together the two figures just given, a total of \$200,304,838 is obtained, which represents approximately the total value of the strictly hosiery and knit goods manufactured in 1909, whether in the hosiery and knit goods industry or in other industries.

Some of the things that a year ago you put off till tomorrow aren't done yet.—Somerville Journal.

The motor bus stopped and the conductor looked expectantly up the steps. But no one descended and at last he stalked up impatiently.

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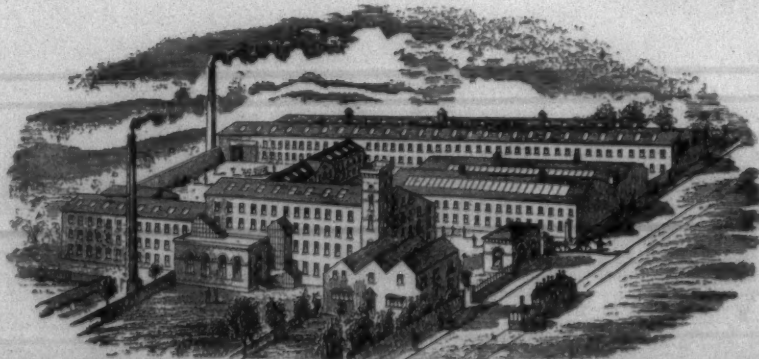
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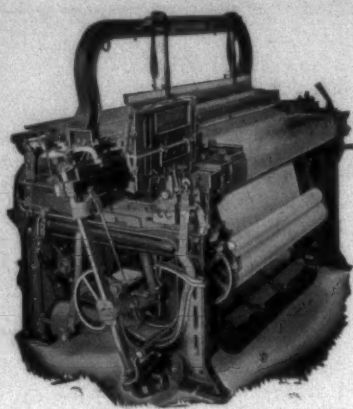
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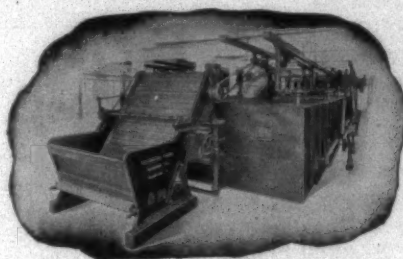
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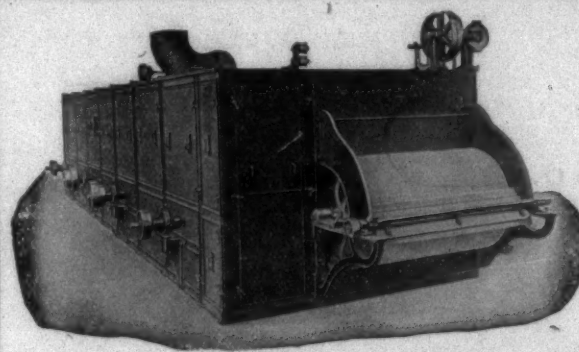


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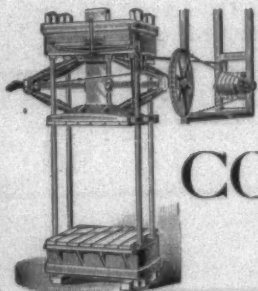
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